Welcome to Cabrillo College

Welcome to the Cabrillo College 2009-2010 Catalog. Inside you’ll find information about our innovative programs and services designed to help you achieve your personal goals whether you are seeking a degree, enhanced job skills, or personal growth.

Our faculty members are as well-known for their outstanding teaching as they are for excellence in their fields. This translates into a superior learning experience for you, allowing you to accelerate your own learning and expertise.

Our high standards in the classroom are supported by a broad range of services from financial aid awards to career counseling, tutoring, interpreters and note takers for students with disabilities, to name just a few. We embrace the vibrant, diverse community that makes our campus a very special place.

Many of our students have extreme financial hardships. Approximately 33% of all our enrolled students receive some type of financial aid whether or not they are U.S. citizens. Taking advantage of financial aid awards makes attending college a reality for many.

Cabrillo has a well-known athletics program for both men and women. We are a member of the Coast Conference of the California Association of Community Colleges. We enter competitions in a wide variety of sports such as football, baseball, golf, basketball, tennis and swimming. Many of our alumni, have gone on to be drafted by major league baseball teams (Mark Eichhorn, Dann Bilardello and Pete Harm) and NFL teams (Reggie Stephens, Brendon Ayanbadejo, Obafemi "Femi" Ayanbadejo, Sam Kennedy and Sherman Cocroft).

Cabrillo College’s main campus is located in mid-Santa Cruz County, in the town of Aptos on hills overlooking the entire Monterey Bay. In addition to the main campus, our center in Watsonville and Scotts Valley provide even more convenient access to higher education and services. Cabrillo offers alternative options for earning college credit, including a variety of classes held in downtown Santa Cruz, online courses and telecourses. Our facilities are up-to-date and cutting edge technology is integrated into our classes and programs.

You will find friendly, supportive staff that genuinely wants to help you make the most of your Cabrillo experience. We all want you to have the best experience possible—because your success is our success.

I invite you to learn more about how we can help you attain your academic, career, and lifelong learning goals. Learn more about Cabrillo College by visiting our web site at http://www.cabrillo.edu.

I hope that you will join our academic community and make Cabrillo College an important part of your educational experience.

Sincerely,

Dr. Brian King
President

Dr. Brian King, Cabrillo College President
Governing Board

Rebecca J. Garcia

Gary Reece

Alan J. Smith

Rachael Spencer

Katy Stonebloom

Susan True

Claudine Wildman
College Officials

Brian King .................................. President and District Superintendent
Margrette (Pegi) Ard ......................... Vice President, Business and Assistant Superintendent
Dennis L. Bailey-Fougnier ................. Vice President, Student Services and Assistant Superintendent
Renée M. Kilmer .......................... Vice President, Instruction and Assistant Superintendent
Robert Owen .................. Associate Vice President, Information Technology
Nancy A. Brown ......................... Dean, Human Arts and Social Sciences Division
Sesario R. Escoto ........................ Dean, Student Services
Wanda Garner .......................... Dean, Natural and Applied Sciences Division
Dan Martinez .......................... Dean, Visual, Applied, and Performing Arts Division
Rachel Mayo .......................... Dean, Education Centers (Watsonville and Scotts Valley)
Rock Pfotenhauer ......................... Dean, Career Education and Economic Development
Margery Regalado Rodriguez .......... Dean, Instructional Development and Matriculation
James Weckler ......................... Dean, Business, English, and Language Arts Division
Kathleen Welch ......................... Dean, Health, Wellness, Physical Education and Athletics Division
Johanna Bowen ......................... Dean, Library and Learning Resources
Doug Deaver .......................... Dean, Facilities Development
Victoria Lewis ......................... Dean, Business Services
Loree McCawley ......................... Dean, Personnel/Human Resources
Tom McKay .......................... Dean, Allied Health
Joseph Nugent ......................... Dean, Maintenance and Operations
Mary Planding ......................... Dean, Marketing and Communications
Deborah Soria ......................... Dean, Financial Aid and Scholarships
Teresa Thomae ......................... Dean, Small Business Development Center
Melinda Silverstein ................ Executive Director, Cabrillo College Foundation
Instructional Divisions and Departments

Business, English, and Language Arts
Dean: James Weckler
- Accounting & Finance
- Bilingual and Bicultural Studies
- Business
- Computer Applications/Business Technology
- Digital Bridge Academy
- English
- English as a Second Language
- Humanities
- Journalism
- Reading
- Real Estate
- World Languages

Career Education and Economic Development
Dean: Rock Pfotenhauer
- Cabrillo Extension
- Career Ladders Project
- Career Technical Education
- Contract Education
- Cooperative Work Experience Education
- Fast Track to Work
- Perkins (VTEA)
- Small Business Development Center
- Tech Prep/School-to-Career

Health, Wellness, Physical Education and Athletics
Dean: Kathleen Welch
- Adaptive PE
- Allied Health
- Dental Hygiene
- Gerontology
- Health Science
- Human Services
- Medical Assistant
- Nursing Education
- PE/Athletics
- Radiologic Technology
- Stroke Center

Human Arts and Social Sciences
Dean: Nancy A. Brown
- American Studies
- Anthropology
- Asian Studies
- Archaeological Technology
- Communication Studies
- Culinary Arts and Hospitality Management
- Early Childhood Education
- Economics
- Education
- Geography
- History
- International Studies

Instructional Development
Dean: Margery Regalado Rodriguez
- Articulation
- Assessment
- Disabled Student Programs and Services (DSPS)
- Honors Transfer Program
- Learning Skills
- Matriculation
- Outreach and Recruitment
- Tutorial Center

Library
Library Director: Johanna Bowen
- Library

Natural and Applied Sciences
Dean: Wanda Garner
- Aeronautics
- Astronomy
- Biology
- Chemistry
- Computer and Information Systems
- Computer Science
- Construction and Energy Management
- Engineering
- Engineering Technology
- Environmental Science
- Geology
- Horticulture
- Mathematics
- MESA
- Oceanography
- Physics
- Welding

Visual, Applied, and Performing Arts
Dean: Dan Martinez
- Applied Living Arts
- Art History
- Art Photography
- Art–Studio
- Dance
- Digital Media
- Music
- Theatre Arts
# Academic Calendar 2009–2010

## FALL SEMESTER
**August 31, 2009–December 19, 2009**

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 4-August 30</td>
<td>Early Registration</td>
</tr>
<tr>
<td>August 31</td>
<td>Fall Semester begins</td>
</tr>
<tr>
<td>September 7</td>
<td>Labor Day (Holiday)</td>
</tr>
<tr>
<td>September 12</td>
<td>Deadline to register for a full-term course</td>
</tr>
<tr>
<td>September 12</td>
<td>Deadline to drop a full-term course with a refund or reversal of charges</td>
</tr>
<tr>
<td>September 14</td>
<td>Census day attendance check for full-term courses</td>
</tr>
<tr>
<td>September 26</td>
<td>Last day to drop a full-term course without an academic record &quot;W&quot;</td>
</tr>
<tr>
<td>October 3</td>
<td>Deadline for pass/no pass grade option in a full-term course</td>
</tr>
<tr>
<td>November 9</td>
<td>Veterans' Day (Holiday)</td>
</tr>
<tr>
<td>November 20</td>
<td>Last day to petition for fall degrees and certificates</td>
</tr>
<tr>
<td>November 21</td>
<td>Last day to withdraw from a full-term course</td>
</tr>
<tr>
<td>November 26-27</td>
<td>Thanksgiving (Holiday)</td>
</tr>
<tr>
<td>December 14-19</td>
<td>Final Examinations</td>
</tr>
<tr>
<td>December 19</td>
<td>Fall Semester ends</td>
</tr>
</tbody>
</table>

## SPRING SEMESTER
**February 8, 2010 - June 5, 2010**

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Event</th>
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<tbody>
<tr>
<td>December 8-February 7</td>
<td>Early Registration</td>
</tr>
<tr>
<td>February 8</td>
<td>Spring Semester begins</td>
</tr>
<tr>
<td>February 12 &amp; 15 only</td>
<td>President's Days (Holidays)</td>
</tr>
<tr>
<td>February 20</td>
<td>Deadline to register for a full-term course</td>
</tr>
<tr>
<td>February 20</td>
<td>Last day to drop a full-term course with a refund or reversal of charges</td>
</tr>
<tr>
<td>February 22</td>
<td>Census day attendance check for full-term courses</td>
</tr>
<tr>
<td>March 6</td>
<td>Last day to drop a full-term course without an academic record &quot;W&quot;</td>
</tr>
<tr>
<td>March 13</td>
<td>Last day for pass/no pass grade option in a full-term course</td>
</tr>
<tr>
<td>March 29-April 3</td>
<td>Spring Break</td>
</tr>
<tr>
<td>April 26</td>
<td>Last day to petition for spring degrees and certificates</td>
</tr>
<tr>
<td>May 8</td>
<td>Last day to withdraw from full-term course</td>
</tr>
<tr>
<td>May 31</td>
<td>Memorial Day (Holiday)</td>
</tr>
<tr>
<td>June 1-5</td>
<td>Final Examinations</td>
</tr>
<tr>
<td>June 4</td>
<td>Graduation</td>
</tr>
<tr>
<td>June 5</td>
<td>Spring Semester ends</td>
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</tbody>
</table>

## WINTERSESSION
**January 4, 2010 - January 29, 2010**

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1</td>
<td>New Year's Day (Holiday)</td>
</tr>
<tr>
<td>January 4</td>
<td>Wintersession Term begins</td>
</tr>
<tr>
<td>January 18</td>
<td>Martin Luther King, Jr. Day (Holiday)</td>
</tr>
<tr>
<td>January 29</td>
<td>Wintersession Term ends</td>
</tr>
</tbody>
</table>

## SUMMER SESSIONS (tentative)
**June 21 - July 31, 2010**

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 21-July 17</td>
<td>Four-week session</td>
</tr>
<tr>
<td>June 21-July 31</td>
<td>Six-week session</td>
</tr>
<tr>
<td>July 5</td>
<td>Independence Day (Holiday)</td>
</tr>
</tbody>
</table>

Students may obtain Cabrillo College information, including the current *Schedule of Classes*, on the Internet at www.cabrillo.edu
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HISTORY OF CABRILLO COLLEGE

Residents of Santa Cruz and Monterey counties living in the San Lorenzo, Santa Cruz, and Watsonville high school districts approved formation of a two-year college district in 1958. The new college’s governing board, elected in January 1959, chose the name “Cabrillo College” and employed staff to begin instruction in September of the same year.

More than 800 day and evening students enrolled in freshman classes in temporary quarters at the Watsonville High School campus while sophomores continued to attend neighboring junior colleges.

The college added sophomore classes to its program in September 1960. The governing board, assisted by citizen committees, selected the present campus site and proposed a $6.5 million bond issue during the first year. Voters gave a 77% “yes” vote to the proposal in June 1960.

Construction of the permanent campus in Aptos began in 1961, and more than 2,000 day and evening students enrolled at the new facility in September 1962. The campus was built to accommodate 2,500 students.

The college began construction of three additional major classroom structures in 1966. To help finance campus expansion, voters of the district gave an 81% “yes” vote on a $1.1 million bond issue in April 1965. Completion of these buildings increased campus capacity to 5,000 students.

A second expansion of campus facilities was made possible by the approval of state community college construction funds in November 1972 and the passage of a local matching fund bond of $3 million in April 1973. Twenty acres of property on the ocean side of Soquel Drive were purchased, and four new buildings were constructed. In the 1990s, two buildings were remodeled and now house technology-related instruction.

In June of 1998, the voters again overwhelmingly supported the College by passing a bond measure for repairs, renovations and expansion of the existing campus, as well as expansion of outreach facilities.

A major expansion in off-campus offerings occurred in fall 1987 with the opening of the Watsonville Center. In 1993, the old Watsonville Post Office was remodeled by the City of Watsonville to house the Cabrillo College Watsonville Center. After the passage of Measure C in 1998, Cabrillo College worked closely with the City of Watsonville to purchase both the old Post Office building and the adjacent Comerica Bank site to provide a new and permanent home for the Watsonville Center. The expanded facility opened in fall of 2001. Enrollment at the Watsonville Center has grown to more than 2300 students.

The college opened a world-class Environmental Horticulture Center and Botanic Gardens in fall 2002 providing an exceptional site for teaching, learning and community enjoyment. The center is located on the hills above the Aptos campus with sweeping views of the Monterey Bay.

In March 2004, voters approved a $118.5 million bond measure allowing the college to expand its excellent health-careers training programs, make improvements to classrooms, expand the Watsonville Center, and help students better prepare for jobs and transfer to four-year colleges, in addition to other important projects.

In January 2007, the Scotts Valley Center opened to better serve the residents of Scotts Valley and San Lorenzo Valley. The center, a modern facility with state-of-the-art classrooms, has easy access from Highway 17. More than 600 students enrolled in the opening semester.

In October 2007, the college opened the Barbara Samper Student Activities Center situated on Soquel Drive opposite Cabrillo College Drive and acquired the old Watsonville Library, adjacent to the Watsonville Center. With the help of a $2.5 million grant from the U.S. Economic Development Agency, the library will be replaced with the new state-of-the-art Industrial Technology Education Center by 2011.

Work has begun on the Arts Education Classrooms project and classrooms for 2D and 3D art opened in fall 2008 and the performance classrooms, two theatres and recital hall are slated to open in 2009.

Work on the new Health and Wellness Center on the Aptos campus has begun and is expected to open in 2010.

WHO WAS CABRILLO?

Cabrillo College is named after Juan Rodriguez Cabrillo, a sixteenth century Portuguese explorer who “discovered” California while in the service of Spain. After taking part in the Cortez victory over the Aztecs, Orozco’s expedition in Oaxaca, and the conquest of Guatemala, Cabrillo sailed from Guatemala with Alvarado’s fleet on its northwestern exploration in 1540.

Alvarado met his death on the west coast of Mexico, and Cabrillo assumed command of the expedition. On September 25, 1542, Cabrillo discovered San Diego Bay, naming it San Miguel. He visited Monterey Bay and discovered the Santa Lucia Mountains on his journey. During the voyage in 1543 Cabrillo died.

In 1935, the California state legislature designated September 28 as “Cabrillo Day,” commemorating the anniversary of Cabrillo’s exploration in California.
MISSION STATEMENT

The mission of Cabrillo College is to enhance the intellectual, cultural, and economic vitality of our diverse community by assisting all students in their quest for lifelong learning and success in an ever-changing world.

Our purpose is to provide an accessible and effective learning environment, which aids students in their pursuit of transfer, career preparation, personal fulfillment, job advancement, and retraining goals.

Our core values are academic freedom, critical and independent thinking, and respect for all people and cultures. Our commitment is to encourage excellence, offer a balanced curriculum, promote teaching methods for diverse learning styles, and involve and enrich our community.

COLLEGE CORE COMPETENCIES

To achieve our mission, the Cabrillo College community works together to help students master our four college competencies. The Core 4 represent the major skills that all students need to succeed. The college is committed to fulfilling this promise: When our students have met the requirement for the A.A. or A.S. degree requirements or have completed the general education sequence, they will be competent in:

Communication: Reading, Writing, Listening, Speaking and/or Conversing

Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving


Personal Responsibility and Professional Development: Self-Management and Self-Awareness, Social and Physical Wellness, Workplace Skills

STUDENT LEARNING OUTCOMES

Student learning outcomes define what students can do when they have completed a course, a certificate or a degree. They are the goals and skills that they have achieved through their study. The four college core competencies are the student learning outcomes for our A.A. and A.S. degrees and the general education sequence. The College is in the process of defining SLOs for every occupational degree, certificate, and course. Students must demonstrate competency in the SLO to pass the course or be awarded the certificate or degree.

PRIMARY FUNCTIONS

Transfer Education: to provide lower division general education and major preparation courses leading to an associate degree and/or to transfer to a four-year college/university;

Occupational Education: to provide education and training in selected occupational fields leading to job entry, advancement, retraining and certification, and to associate degrees.

ESSENTIAL TO THE PRIMARY FUNCTIONS

Basic Skills Education: to provide transitional education programs and courses for students needing preparation to succeed in college-level work;

Student Support Services: to provide student support services that enhance student success.

AUTHORIZED FUNCTION

Noncredit Education and Self-Supporting Programs: to offer continuing education responsive to the professional, cultural, and developmental needs and interests of the community.

ACCREDITATION

Cabrillo College is accredited by the Western Association of Schools and Colleges, the recognized local agency which is affiliated with the Federation of Regional Accrediting Commission of Higher Education. The College has been approved by the Board of Governors of the California Community Colleges and the California State Department of Education. The College is also approved by the California Department of Education for the training of veterans under the provisions of the G.I. Bill of Regulations. The College is a member of the Community College League of California. Designated courses are accepted on a transfer basis by the University of California, the California State University system, and by private four-year colleges and universities.

GENERAL CURRICULUM

To fulfill essential components of the mission of Cabrillo College, the Governing Board recognizes and supports the offering of courses that meet the needs of the residents of the district. The College offers the following curriculum:

Transfer

The College offers courses and programs fulfilling requirements for admission to advanced standing in the University of California, California State University system, and many other public and private four-year institutions.

Career Technical Education

Career Technical Education courses and programs that prepare students for immediate employment or job advancement.

General Education

General Education courses are designed to give breadth and coherence to the student’s education experience. General education is that part of a student’s education that encompasses the common knowledge, appreciations, attitudes, and skills needed to become effective as an educated person in our society, including awareness, appreciation, and respect for diverse cultures. General education is complementary to, but different in emphasis and design from, specialized training for a job, a profession, or advanced study in a specific field of knowledge.

Basic Skills

Developmental courses are necessary for student success and retention. Basic skills courses are designed for students who are nearly college ready but exhibit skill deficiencies more than one level below freshman level English, math, or reading.
Learning Skills

Learning Skills courses are designed to assist students who have learning disabilities to succeed in programs of study offered by the College. Placement in these classes is preceded by individual diagnostic testing. An Individual Education Plan will be developed for each student.

Noncredit Classes

Certain class subjects qualify for special state funding and do not carry an enrollment fee. These classes, numbered in the 500 series, are designed to provide educational opportunities for older adults, parents, “fast track to work” students, and those in other areas of interest such as health and consumer protection.

CABRILLO EXTENSION

The Cabrillo Extension Office provides fee-supported classes, Motorcycle Safety Training, Traffic School, online classes, special events, Corporate Training, scheduling of college facilities for community and college use, and ticket sales for Performing Arts events.

Cabrillo Extension Classes

Approximately 400 fee-supported not-for-credit classes are offered to the public each year. They cover a full spectrum of topics for all age groups and are scheduled 12 months a year in convenient formats. The Cabrillo Extension publication lists these classes, plus concerts, lectures, and other special events. Class suggestions from the community are welcome. For information call (831) 479-6331 or visit www.cabrillo-extension.org.

Use of College Facilities by the Public

The College encourages the use of school facilities by public agencies and community organizations. Over 1200 events per year are scheduled on the Cabrillo campus, and a comprehensive master calendar is maintained in the Cabrillo Extension Office. Both indoor and outdoor facilities are available. Organizations can receive scheduling and fee information by calling (831) 479-6332. For information on renting the Sesnon House, call (831) 479-6229.

Corporate Training

Cabrillo College develops programs to meet the training and retraining needs of business, industry, government, and labor. We also offer meeting facilitation and coaching services. For information call (831) 479-5039 or go to the Corporate Training website at www.cabrillo.edu/services/corporate, or click on the link on the Cabrillo Extension website at www.cabrillo-extension.org.

Ticket Sales

For information on ticket sales please call (831) 479-6331.

SMALL BUSINESS DEVELOPMENT CENTER

The Central Coast Small Business Development Center (SBDC) offers business counseling, technical assistance, and referral services free of charge to start-up and existing businesses in Santa Cruz and the coastal regions of Monterey counties. You do not need to be a Cabrillo College student to obtain services from the SBDC. The center also offers business-related workshops, and seminars for a nominal fee. Counseling services available include business plan development, marketing and sales, personnel management, financing, bookkeeping systems review, and financial analysis. For more information, call (831) 479-6136 or e-mail the center at sbdc@cabrillo.edu or at www.centralcoastsbdc.org. The SBDC is operated by Cabrillo College under contract with the California Community Colleges Chancellor’s Office, the U.S. Small Business Administration, and Humboldt State University.

DISTANCE EDUCATION

Distance education courses offer students an opportunity to learn and earn college credit over the World Wide Web (online courses) or by watching lectures over cable TV (telecourses). Online learning offers flexible educational opportunities to students who seek alternatives to on-campus classes due to scheduling conflicts, child-care, work, or other commitments. As you contemplate whether online learning is for you, keep in mind that online courses may require more from you, in terms of motivation, discipline, and time.

Telecourses are pre-produced television courses which can be seen on Community Television of Santa Cruz County Channel 25 (Comcast Cable), on Watsonville Community Television Channel 71 (Charter Cable), and on videotape. Students need to have regular access to the World Wide Web for online courses and will frequently interact with instructors via a web-based course management system. Students should check their instructor's web directory page for additional information about how to access the course and whether one or more on-campus meetings are required. You may also check the Schedule of Classes long description for orientation information. The Distance Education website, located at www.cabrillo.edu/services/disted contains abundant information for students interested in this mode of instruction. Or contact Francine Van Meter at (831) 479-6191 in the Teaching and Learning Center.

EVENING CLASSES

The evening program is an extension of the day program, paralleling day courses in college credit value, prerequisites, course content, and hours in class. Requirements for the associate degree are the same for evening students, day students, and weekend students. Counseling is available by appointment most evenings until 7 p.m. Information pertaining to evening classes may be obtained from Admissions and Records at (831) 479-6201.

SUMMER AND WINTER SESSIONS

Summer sessions of four and six weeks, plus a four-week Wintersession, supplement the primary college semesters of fall and spring. The courses scheduled are generally designed to meet basic course requirements and prerequisites, and to provide occupational training for employment. Recent high school graduates may enroll in summer sessions for an early start in college work. Students who will be in high school during the academic year following the summer session may, with the consent of their high school principal or counselor and parent or guardian, enroll in college summer courses. Out-of-state students must meet the same residence qualifications of regular session day students. All students are required to be assessed and attend the Cabrillo College orientation.
WATSONVILLE CENTER

The Watsonville Center is located at 318 Union St. in downtown Watsonville, next to the City Plaza. Classes offered include general education, vocational, and transfer level courses in most disciplines. Students may complete all general education requirements at the center for an A.A./A.S. degree, vocational certificate, or preparation for transfer. All college registration activities and student records may be accessed at the Center, as well as tutoring, counseling, financial aid, health services, learning disability testing, services for students with disabilities, the college bookstore, library resources, open computer labs, assessments, and orientation. The Admissions and Records office is open Monday through Thursday, 8 a.m. to 6:00 p.m., and Friday 9 a.m. to 2:30 p.m. The main information number is (831) 477-5155.

SCOTTS VALLEY CENTER

The Scotts Valley Center is located at 104 Whispering Pines Drive near the intersection of Scotts Valley Drive and Mount Herman Road. Students may take general education courses in the multimedia-equipped, state-of-the-art classrooms, and most qualify for transfer credit, are AA/AS degree-applicable or lead towards certificates of proficiency in selected occupational fields. Academic counseling is available by appointment, which can be made by calling the Aptos office at (831) 479-6737. Financial Aid staff is on site Mondays from 4-6pm and Thursdays from 9-11am. The main information number is (831) 477-3550.

MILITARY AFFAIRS PROGRAM/ROTC

Cabrillo College students may register for lower division courses designed for those who wish to explore their interests in military affairs or in becoming commissioned officers in the United States military forces.

Courses are conducted at the University of California, Berkeley. Some courses are offered on Saturday for the convenience of the community college student. Credit is granted through the University and will be recorded toward the A.A. or A.S. degree at Cabrillo College upon receipt of an official UC grade report. Information is available on the web at http://military.berkeley.edu/

INDIVIDUALIZED LEARNING

A variety of individualized learning programs are available for students. For information about individualized learning available on campus, contact the following departments:

- Biology Learning Center, Room 616, (831) 479-6286
- Computer Technology Center, Building 1400, (831) 479-6737
- Library–Reference Desk, Building 1000, (831) 479-6163
- Mathematics Learning Center, Room 1074, (831) 477-5696
- Reading Center, Room 1063, (831) 479-6573
- Writing Center, Room 1060, (831) 479-6319
- ESL Laboratory, Room 1060, (831) 479-5790
- Tutorial Center, Room 1080A, (831) 479-6470
- MESA Study Center, Room 714, (831) 479-6503
- Physics/Engineering Learning Center, Room 830 (no phone)
- Watsonville Integrated Learning Center, Room 4410, (831) 477-5155

COOPERATIVE WORK EXPERIENCE EDUCATION (CWEE)

Cooperative Work Experience Education Courses

Cabrillo College offers three opportunities for students to receive course credit through linking academic opportunities with paid or unpaid workplace experiences: Career Work Experience, General Work Experience, and Service Learning. Students earn one unit per 60 hours of unpaid work experience or one unit per 75 hours of paid work experience. Work Experience students benefit by gaining a realistic approach to the 21st century job market, validating interests and clarifying career goals by applying classroom theories to the work environment, and having work experience to refer to on future job applications.

Career Work Experience is for students enrolled in career-oriented majors. This program provides supervised work experience at a worksite that is directly related to the student’s career goal, and along with other on-campus lecture and laboratory courses, is an integral part of the student’s major. Students may earn up to 16 credit units of career work experience.

General Work Experience is for students who want to explore career and work experience opportunities. This program, designed to help students develop career and workplace culture awareness, combines classroom instruction with paid or volunteer work experience, utilizing the community’s business, industry, government, and non-profit agencies as expanded educational sites. Courses are listed under Work Experience Education. Students may earn up to 6 credit units of general work experience.

Service Learning is for students who are co-enrolled in a course that offers a Service Learning option. Service Learning integrates community service with academic learning, focusing on meeting community needs and achieving course objectives. Individual course listings will specify if a course includes a Service Learning option.

Work Experience credit is either non-transferable, or transferable to select CSU campuses. Transfer credit is limited at some CSU campuses; students are advised to check with a Cabrillo College counselor. Additional assignments are required for Work Experience transfer credit.

To enroll, a student must have a full or part-time paid or volunteer job, attend a half-hour orientation session, and develop learning objectives with the assigned faculty Instructor/Coordinator and the worksite supervisor.

If a student does not currently have a job, the Cabrillo College Student Employment Center, Room 804, can assist in obtaining suitable paid employment and unpaid work experience opportunities. Many of their job resources can be accessed through their web site by searching for “job placement” on the Cabrillo College home page.

For further information contact the Cooperative Work Experience Education (CWEE) Program Coordinator at (831) 477-5650, Room 2100B. Students can also access the Cabrillo College Cooperative Work Experience Education web page by scrolling the “A – Z Index” to “C” on the Cabrillo College home page: www.cabrillo.edu
Nondiscrimination Policy

Cabrillo College does not discriminate on the basis of ethnicity, national origin, religion, age, gender, sexual orientation, race, or physical or mental disability, or any other protected status category in any of its policies, procedures, or practices. This nondiscrimination policy covers admission and access to, and treatment and employment in, the College’s programs and activities, including vocational education programs. Limited English language skills will not be a barrier to admission to and participation in vocational education programs. To request more information about equal opportunity policies and the filing of complaints, contact:

Renée Kilmer, Title IX Officer: (831) 477-5077
Pegi Ard, ADA Coordinator: (831) 479-6406
Joe Napolitano, Section 504 Officer: (831) 479-6395
Loree McCawley, Director of Personnel and Human Resources
(Staff Complaints): (831) 479-6217
Sesario R. Escoto, Student Affairs Office
(Student Complaints): (831) 479-6525
The above can be reached at 6500 Soquel Drive, Aptos, California 95003.

The College recognizes its obligation to provide overall program accessibility for students with disabilities. Contact the Section 504 Coordinator to obtain information as to the existence and location of services, activities, and facilities that are accessible to and usable by persons with disabilities.

Inquiries regarding Federal laws and regulations concerning nondiscrimination in education or the College’s compliance with those provisions may also be directed to:

Office for Civil Rights, San Francisco Office
50 Beale Street, Suite 7200
San Francisco, California 94105
(415) 427-5486-5555, Fax: (415) 486-5570
ocr_sanfrancisco@ed.gov

Plan de Acción No Discriminatoria

Cabrillo College no discrimina a base de identificación con grupos étnicos, nacionalidad de origen, religión, edad, sexo, raza, color, incapacidad mental o física ni orientación sexual en ninguna de sus reglamentaciones, procedimientos o prácticas. Este plan de acción no discriminatorio incluye la admisión y el acceso a los programas y actividades, y el tratamiento y el empleo en los mismos, incluyendo la educación vocacional. Tener limitadas destrezas en el idioma inglés no constituirá una barrera para ser admitido o participar en los programas de educación vocacional. Para solicitar más información acerca de nuestras reglamentaciones sobre oportunidad equitativa y para presentar quejas, comuníquese con:

Renée Kilmer, Title IX Officer: (831) 477-5077
Pegi Ard, Coordinadora de ADA: (831) 479-6406
Joe Napolitano, Oficial de la Sección 504: (831) 479-6395
Loree McCawley, Recursos Humanos, (831) 479-6217
Sesario R. Escoto, Oficina de Asuntos Estudiantiles (Reclamos de estudiantes): (831) 479-6525
Puede comunicarse con todos ellos en Cabrillo College, 6500 Soquel Drive, Aptos, CA 95003.

Sexual Harassment Policy

It is the policy of the Cabrillo Community College District to provide an educational, employment, and business environment free of unlawful and unwelcome sexual advances, requests for sexual favors, and other verbal, visual, or physical conduct of a sexual nature, made by someone from or in the workplace or in the educational setting constituting sexual harassment, as defined and otherwise prohibited by state and federal statutes.

For additional information regarding this policy and the procedures involved, contact Loree McCawley, Director of Human Resources (staff complaints): (831) 479-6217 or Sesario R. Escoto (student complaints), Dean of Student Services, (831) 479-6525.

Plan de Acción sobre Acoso Sexual

Es el plan de acción del Distrito de Cabrillo Community College a proveer un ambiente de educación, de empleo y de negocios libres de avances sexuales no deseados, de solicitudes de favores sexuales y de cualquier otro tipo de conducta o comunicación verbal o física que constituya un hostigamiento sexual, según lo definen y lo prohíben los estatutos estatales o federales.

Para más información sobre este plan de acción y sobre los procedimientos al respecto, comuníquese con Loree McCawley, Director de Recursos Humanos (831) 479-6217 o con Sesario R. Escoto, Decano de Servicios Estudiantiles, (831) 479-6525.

Drug–Free Campus

It is the policy of the Cabrillo Community College District to maintain a campus free of the possession, manufacture, use, or distribution of controlled substances as listed in the federal Drug Free Schools and Communities Act (DFSCA), which includes, but is not limited to, substances including alcohol, cannabis (marijuana/hashish), hallucinogens, cocaine/crack, amphetamines, and heroin. More information about Cabrillo’s policies, procedures, and resources is available at www.cabrillo.edu/services/health.

Smoke–Free Campus

Cabrillo College is a smoke-free environment. In the interest of health and safety for students, visitors, and staff, smoking is prohibited indoors and outdoors at all campus facilities except in designated parking lots. Pursuant to Board Policy 6120.
Since 1962, the Cabrillo College Foundation has raised private gifts to enhance Cabrillo’s educational and community service programs. Of the 1,400 community colleges in the nation, the Cabrillo College Foundation ranks among the top 2%. The generosity of Cabrillo College supporters has resulted in top state and national rankings in an annual study of college donors conducted by the Council for Aid to Education (CAE), a subsidiary of RAND Corporation.

Local citizens, college staff, faculty, and Cabrillo trustees serve on the foundation’s thirty one member board, representing all geographic areas of the community. The foundation board and supporters of Cabrillo College provide private support for scholarships, equipment, programs, and facilities. In the last ten years, the Cabrillo College Foundation has raised over $23 million dollars for the support of college initiatives.

Donations for the 2007-08 academic year were $3.6 million for Cabrillo’s programs. In addition to numerous campaigns and initiatives each year, the Cabrillo College Foundation supports the following important programs annually.

- **Scholarships**: Private donations to the Cabrillo College Foundation fund all Cabrillo College Scholarships. The Cabrillo College Foundation has the fourth largest scholarship program in California for community college students. The Cabrillo College Foundation has developed a very large scholarship program which distributes over 700 scholarships equaling $403,000 annually to assist financially needy and academically promising students. Scholarships are generally between $400 and $1,500 per award. Applications for scholarships are due December of each year.

- **Women’s Educational Success (WES)**: WES is a special financial aid program funded by private donations to the Cabrillo College Foundation. This endowment provides emergency cash grants for women with a strong commitment to succeed in college. The WES grants are for immediate emergent needs of women. Many recipients are single mothers with very limited resources. The priority is to fund unexpected expenses such as the replacement of a schoolbook, materials needed for a class, or a bus pass. Each year over $20,000 is awarded.

- **Cabrillo Advancement Program (CAP)**: The CAP program is a combination of innovative mentoring activities, scholarships, parent involvement, Saturday academies, counseling, tutoring, summer institutes, and other family events designed to increase the academic success of 350 CAP students who are socially, educationally, and economically disadvantaged students in local middle and high schools. Participating students who graduate from high school and enroll at Cabrillo, receive $2,000 in scholarships. A full-time Coordinator/Counselor administers the CAP program. CAP is sponsored by Cabrillo College and primarily funded by the foundation through private donations.

- **Faculty Grants for Student Success**: Grants are awarded to faculty to improve or enhance instruction at Cabrillo College. Approximately $17,000 is awarded annually for faculty projects. The foundation has the largest California community college endowment for faculty.

- **President’s Circle**: The President’s Circle is a primary source of unrestricted funds for the Cabrillo College Foundation. The President’s Circle program raises unrestricted funds for the college’s areas of greatest need. President’s Circle members are considered special friends and supporters of the Cabrillo College President.

- **The Cabrillo College Foundation works with donors to develop planned gifts and bequests, and outright gifts, depending on individual financial planning needs.**

The Cabrillo College Foundation is a not for profit 501(C)(3) organization.

For more information:

Melinda Silverstein, Executive Director
Cabrillo College Foundation
6500 Soquel Drive
Aptos, CA 95003
Tel: (831) 479-6338
Fax: (831) 477-5686
E-mail: mesilver@cabrillo.edu
OPEN ENROLLMENT

It is the policy of Cabrillo College that, unless specifically exempted by statute, every course, course section, or class that is reported for state apportionment, wherever offered and maintained by the district, shall be fully open to enrollment and participation by any person who has been admitted to the College and who meets such prerequisites and selection procedures as may be established pursuant to Title 5 of the California Administrative Code, commencing with Section 55200.

ADMISSION REQUIREMENTS

High School Graduates

Any high school graduate or person with a GED or high school equivalent certificate will be admitted to Cabrillo College.

Non-High School Graduates

A person 18 years of age or older who is not a high school graduate will be admitted to the College to pursue general education or to enroll in a specialized vocational program. A student may prepare for transfer to a four-year college or university without the high school diploma. All non-high school graduates should request special counseling from the Counseling Division.

Admission of Minor Students Without High School Diplomas

The Cabrillo College Governing Board may authorize the enrollment of a limited number of eligible minor students each term on a space available basis, who the Board determines would benefit from the educational enrichment opportunities of advanced scholastic or vocational work (courses numbered in the 200 series are not advanced scholastic or vocational courses). It is the intent of the Board to consider the enrollment of eligible minor students in compliance with the district priority admission mandates outlined in Education Code Section 76000 and in the district’s fulfillment of its educational mission. Further, the Board may only authorize the acceptance of eligible minor students, when the work being requested provides course work otherwise not available to the minor student, when the enrollment of the minor student in college work is not in conflict or in lieu of the compulsory school attendance laws of the state, and when the exceptions to allow enrollment of minors is consistent with the philosophy and mission of the College.

These students will receive Cabrillo College credit and their grades will be sent to their high schools.

Concurrent enrollment procedures for high school students: Students whose age or class level is equal to grades 9-12 may register at Cabrillo College for credit courses, as special part-time, full-time, or summer session students.

I. Special Part-Time Student (six units or less)

Enrolled in a public or private high school and must meet each of the following criteria:

1. Written parental or guardian consent, with emergency notification information.

2. Written high school Principal (or designee specified by the Principal) recommendation, consent, and verification that the student:
   a. has the maturity and skill level needed to attend a college;
   b. has not failed this course in high school;
   c. has taken advantage of all the opportunities to enroll in equivalent course(s) at his or her school of attendance. If the high school does not offer the course(s), identify availability to student within the district.

3. Skill level assessment through Cabrillo College assessment process for students from unaccredited private schools or for students taking an English or math course. For other courses without a math or English prerequisite, assessment is recommended.

4. Ability to benefit from advanced scholastic or vocational work as determined by the Cabrillo College Governing Board, which authorizes the Superintendent/President (or designee) to make such judgments.

5. Attend classes for at least a minimum day at his or her school, or in accordance with the high school’s policy.

6. If released from a home school, independent study program, or Charter School, the signature of the appropriate district representative is needed.

7. Written approval of a Cabrillo College counselor for students in unaccredited private high schools.

II. Special Full-Time Student (more than six units)

Enrolled in and/or released from a public or private high school and must meet each of the following criteria:

1. Written parental or guardian consent, with emergency notification information.

2. Written high school Principal recommendation, consent, and verification that the student:
   a. has the maturity and skill level needed to attend a college;
   b. has not failed the courses in high school;
   c. has taken advantage of all the opportunities to enroll in equivalent courses at his or her school of attendance. If the high school does not offer the courses, identify availability to student within the district.
3. Skill level assessment through Cabrillo College assessment process. Assessment is required for any student taking a total of more than six units.

4. Ability to benefit from advanced scholastic or vocational work as determined by the Cabrillo College Governing Board, which authorizes the Superintendent/President (or designee) to make such judgments.

5. If released from a home school, independent study program, or Charter School for a full time program, the signature of the appropriate school district representative is needed.

6. Written approval of a Cabrillo College counselor.

Students will be expected to provide their own texts, some instructional supplies, and pay fees.

III. Special Summer or Wintersession Student: Special summer or Wintersession students will meet the same criteria as the special part-time or full-time student except that the student is not required to have met criteria I, 2C, and may have received a failing grade in high school.

IV. K-8th Grade Student: Minor students enrolled in K-8th grade districts may attend Cabrillo College for advanced scholastic courses, but only as special part-time students.

Students must meet each of the following criteria:

1. Such courses are not being offered by local school districts and/or any other educational institutions available to the student.

2. Written parental or guardian consent, with emergency notification information.

3. Written school Principal recommendation and consent, and verification that the student:
   a. has the maturity and skill level needed to attend a college;
   b. has not failed this course.

4. Ability to benefit from advanced scholastic or vocational work as determined by the Cabrillo College Governing Board, which authorizes the Superintendent/President (or designee) to make such judgments.

5. If released from a home school, independent study program, or Charter School, the signature of the appropriate school district representative is needed.

6. Skill level assessment through Cabrillo College assessment process if enrolling in math or English classes.

7. Written approval of a Cabrillo College counselor.

Students will be expected to provide their own texts, some instructional supplies, and pay fees.

OUT-OF-STATE STUDENTS

Out-of-state applicants may be admitted to the College on the same basis as California residents except that they will be required to pay tuition prescribed by the Governing Board to cover the costs of instruction. After an adult student who is eligible to be a California resident has been present in California and has manifested clear intent to become a California resident for at least one year and one day prior to the first day of the term, he/she may apply for reclassification as a California resident. State law requires consideration of financial independence for students seeking reclassification.

RESIDENCY REQUIREMENTS

All students not meeting the requirements below will be classified as “nonresidents” and are subject to nonresident tuition and enrollment fees.

Students shall receive resident student classification if they qualify under one of the following conditions:

1. If the student (age 18) and the student’s parent or legal guardian have resided in California for at least one year and one day prior to the beginning of the semester, and can prove California residency by providing documents such as California tax returns or a California driver’s license to confirm that date.

2. If the student (19 or over) has resided in California for at least one year and one day prior to the beginning of the semester, and can prove California residency by providing documents such as California tax returns or a California driver’s license to confirm that date.

3. If the student is under 18 years of age and his/her parent or legal guardian has resided in California for at least one year and one day prior to the beginning of the semester, and can prove California residency by providing documents such as California tax returns or a California driver’s license to confirm that date.

In addition, if the student is not a United States citizen, or permanent resident, or on a visa that allows the student to establish California residency, then the student must provide verification that he/she has applied for residency with the United States Citizenship and Immigration Services (USCIS) at least one year and one day prior to the beginning of the semester.

Beginning January 1, 2002, AB 540 required that certain nonresident students who have completed three years of high school in California and received a high school diploma or equivalent, be exempted from paying nonresident tuition.

CALIFORNIA RESIDENCY STATUS CHANGE

Students who have been out-of-state residents must submit a new residency statement in order to change their status. Residency documents should be submitted to Admissions and Records the semester prior to change of status. Out-of-state residency will not be changed automatically. State law requires consideration of financial independence for students seeking reclassification.

SPECIAL ADMISSIONS PROCEDURES

Certain programs require special admissions, and students must follow those admissions procedures following admission to the college. Such programs include Dental Hygiene, Nursing, and Radiologic Technology. Other special admissions are required for cohort studies, such as ACES, DBA, Honors, and Puente. Students admitted to any specialized programs must comply with program-specific rules and regulations as set forth in their program materials and handbooks. For more information, see the specific details for the respective programs in the course listings section of the Catalog.

CONFIDENTIALITY STATEMENT

Under Section 49061 of the Education Code, parents of community college students do not have a right of access to their children’s student records, regardless of whether the student is under the age of 18. Also, under federal law (Section 1232g of Title 20 of the United States Code), there is a general right of parental access to student records, but not for college students, regardless of age.
INTERNATIONAL STUDENTS

1. Admission
   All applicants for admission with F-1 visas must submit the following documents to the International Student Office by the application deadline. The application deadline for fall semester is July 10. The deadline for spring semester is December 10.
   a. A completed international student application form (available from the International Student Office or online at www.cabrillo.edu/services/international).
   b. A $60 non-refundable application fee.
   c. Transcripts of secondary (and post-secondary, if any) school or college work completed. These transcripts must be official and in English.
   d. Official Test of English as a Foreign Language (TOEFL) result with a score of 450 or higher PBT or 133 CBT, or 45 iBT.
   e. A financial statement which indicates the student has the means to support his/her costs of attendance (meaning tuition and living expenses) either from personal, family, sponsor, or governmental sources.
   *Exceptions: Students on B, H, or J visas need only submit the application and the $60 application fee.

2. Rules and Regulations
   a. Payment of Tuition: Tuition is due and payable at the time of registration for classes. Registration is not complete until the full tuition is paid.
   b. English Placement: Entering international students are required to take an Assessment Test administered by the Cabrillo College Assessment Center. The results of the test will determine the proper placement for each student in the English course sequence.
   c. Study Load: International students with F-1 status must complete at least 12 units per semester. The College must report to the U.S. Department of Homeland Security if a student has withdrawn from college or is taking less than a full program.
   d. Employment: F-1 students attending the College are not permitted to work without prior approval. Consult the International Student Office for details and procedures.
   e. Change of Status: Any change in immigration status must be discussed with the International Student Office.
   f. Arrival: Students admitted with an F-1 visa must report to the International Student Office by the date indicated on their I-20 form. Failure to do so may result in the revocation of the I-20.
   g. Change of Address: Students must inform the International Student Adviser and the Office of Admissions and Records of all address and telephone changes. A current local address must always be on file at the College.
   h. Illness: Students must inform the International Student Office of any extended illness (more than three consecutive class meetings) by telephone or mail.
   i. Document Renewal: It is the student’s responsibility to maintain a valid, current passport and I-20 form.
   j. Housing: Cabrillo College does not offer dormitory housing. To locate satisfactory housing, students should arrive well before classes begin. The International Student Office maintains a limited list of available housing and homestay information.
   k. Termination of Attendance: The College reserves the right to terminate the enrollment of any international student whose academic progress, observance of college rules and regulations, or personal conduct falls below acceptable standards.

The International Student Office is located in Room 126. For help, phone (831) 479-6200 or email international@cabrillo.edu.

MATRICULATION: STUDENT SUCCESS PROCESS

MATRICULATION: STUDENT SUCCESS PROCESS

Matriculation is a process that supports the student from initial enrollment at Cabrillo College through the completion of his/her educational goal. Matriculation is a partnership between the College and the student and is a part of the services offered at all community colleges. We commit to provide the following services through Matriculation:

- A clear and accessible ADMISSIONS process
- An ORIENTATION to the college, the services we provide, and the policies in place that support the student
- ASSESSMENT of academic skills through placement testing in math, English, and reading
- COUNSELING, ADVISING, AND EDUCATIONAL PLANNING so that students enroll in the correct courses and complete their academic program in the shortest period of time
- FOLLOW-UP SERVICES when students are having academic difficulties and need some additional support

YOUR PART OF THE PARTNERSHIP IS TO:

- Complete the placement assessment
- Complete an orientation
- Declare an educational goal (A.A. or A.S. degree, certificate, transfer to a four-year college or university, etc.) in a reasonable amount of time
- Make predictable progress toward your stated goal
- Meet with Cabrillo staff and utilize College support services when needed

ADMISSIONS PROCESS – See additional information in this Catalog, the Schedule of Classes, and the Cabrillo website, www.cabrillo.edu for methods of and locations for enrollment and registration.

PLACEMENT ASSESSMENT – To a large degree, success in college is dependent upon students enrolling in courses that match their abilities and skills. These are determined through different placement assessments in math, reading, and English. These assessments are taken in the Assessment Center’s computer lab or in a group setting with paper and pencil. These are offered at the main campus in Aptos, the Watsonville Center, and sometimes at local high schools. Additional considerations such as previous coursework, grades, and experience are included in the calculation of the score and course placement. These are referred to as multiple measures. Placement assessment is needed for all new students who intend to:

a) earn a certificate or associate degree;
b) enter their first college English or math course;
c) enroll in more than six units; or
d) satisfy math, reading, and English prerequisites.
The Assessment Center is located in Student Activities Center West (SAC West), Room 200 on the Aptos Campus. Schedules of assessment dates, times and locations are located in the Enrollment Services Center (Building 100), the Assessment Center, the Watsonville Center, and online. For more information and practice exams in math, call (831) 479-6165 or go online to www.cabrillo.edu/services/assessment.

Some courses may require that a student read, write, or analytically compute at a certain level. These skills or knowledge are usually gained through a course called a prerequisite course or a corequisite course. A prerequisite course needs to be successfully completed before enrolling in the desired course. The corequisite course is taken at the same time as the desired course. Successfully completing prerequisites and corequisites is required. See this Catalog, the Schedule of Classes, and the Cabrillo webpage, www.cabrillo.edu for more information. A counselor can also assist you with information on prerequisites and corequisites.

If you believe you already have the skill level offered in the prerequisite or corequisite course, see the Challenge process below.

Some scores on an assessment/placement test may indicate the need for further assessment for possible learning disabilities. There are excellent campus resources for these services through the Learning Skills Program in Room 1073 or at (831) 479-6220.

Orientation—This required service is available three ways: online from home 24/7, in a group setting with a counselor after some of the assessment tests, and through a credit class (CG 51.) The information in the orientation will help the student become familiar with the college experience, select an educational goal, enroll in the correct courses; and becoming familiar with college policies, processes, and services. For additional information see Matriculation on the A-Z Index on the College website or obtain information at the Assessment Center.

Educational Advising—After completing orientation, students should meet with a counselor to develop an ‘education plan’ for course selection and easy registration. This is a critical component of the Matriculation process and can guide and predict time and courses needed for completion of the educational goal.

Exemption from Matriculation Services

Some students are exempt from matriculation requirements. They include students who:

- are enrolled in fewer than six (6) units;
- have an A.A./A.S. Degree or higher;
- have already satisfied the required pre or corequisite through other documented means. A student needs to meet with a counselor to have the documentation entered into the computer. See additional information in this Catalog, the Schedule of Classes, and on the Cabrillo website www.cabrillo.edu.

We encourage students to take advantage of the Matriculation services, as they will move students towards their goals in the fastest amount of time.

The above services are a part of the Matriculation process. You may take advantage of them or not. If you decide not to, you will need to complete a Request to Waive Matriculation Services. This will waive your participation in assessment, orientation, or counseling. If you waive assessment, you will be placed in the lowest level of math and English unless you provide documentation of prior successful coursework or you challenge the course prerequisites, if they apply.

Forms are available online at www.cabrillo.edu for waiving services and challenging pre or corequisites. Click on the A-Z Index, Click on “M”, and scroll down to Matriculation. Click on left side of page for PDF forms. Both are downloadable. Additional locations for forms include Admissions and Records (Aptos and Watsonville), and the counseling offices in Building 100 and the Office of Instructional Development/Matriculation in the Student Activities Center West (SAC West) room 213.

Probation—There are two types of probationary categories that can impact your status at Cabrillo.

- Academic Probation is triggered when your grades fall below a 2.0 GPA. This moves you from satisfactory academic standing.
- Progress Probation is triggered when you have dropped courses with a W or I or have not completed courses (NC) for more than 50% of the total number of units in which you have enrolled as a student at Cabrillo.
- Dismissal is triggered after two semesters of academic or progress probation.

We want to work with a student before he/she reaches this point. See a counselor to learn about additional resources. See this Catalog, the Schedule of Classes or the Cabrillo website, www.cabrillo.edu for more information.

Registration

Application for Admission

Applications for Admission are available on the Cabrillo College website (www.cabrillo.edu), and in the Schedule of Classes. New and re-entering students should submit applications early in the registration cycle to be eligible for early registration and to have the best opportunity to get needed courses. Each full-time and part-time student must have a completed application on file. Applications are active for one year for college students regardless of whether the student registers.

Registration

After an application has been submitted and processed by Admissions and Records, students are encouraged to participate in early registration. Early registration can be accomplished using Cabrillo College’s online registration, WebAdvisor, at www.cabrillo.edu, or telephone registration, HawkTalk (831) 479-4295. All students must observe the registration, attendance, and withdrawal policies and procedures described in the Catalog and Schedule of Classes. Each Schedule of Classes has specific registration information.

Before attending any class, each student must have completed registration. Credit will not be given for courses in which a student is not registered.

Cabrillo’s registration priority is as follows:

- Disabled Student Program and Services, and Extended Opportunity Program and Services
- Continuing students with 30+ Cabrillo units
- Continuing students with 1-29 Cabrillo units (Freshman)
- New and re-entering students
- Concurrent high school students
Advising
To assist students in attaining their educational goals, the College provides counseling services. Students enrolling in more than six units are required to participate in placement assessment services and should also meet with a counselor.

Late Registration
Students may register for full-term courses during late registration, which occurs during the first two weeks of instruction in fall or spring semester. Registration continues for short-term courses until the day before the first class meeting. Assessment results and signed permission of the instructor are required. Students are allowed to register in some courses without transcripts on file. However, transcripts are used for prerequisites, transfer, and graduation and are required for financial aid recipients. All transcripts submitted become the permanent property of Cabrillo College, and copies of these transcripts cannot be sent elsewhere. Official transcripts are required for certificates of achievement, associate degrees, and financial aid grade point average verification.

Special Studies
Special Studies (Subject 22, 80S) extends or deepens a student’s knowledge of a particular field. Subject 22 is a unique course, receiving a letter grade and honors designation on the transcript. It is an appropriate alternative when the material to be studied surpasses existing course content. Students should meet with a counselor to determine transferability of Subject 22 and 80S courses.

Classification of Students
A freshman has earned less than 30 semester units of credit.
A sophomore has earned 30 units of credit, or more, but has not completed all course and unit requirements for the Associate in Arts or Associate in Science Degree.
A degreed student has already completed all courses and unit requirements for the Associate in Arts or Associate in Science Degree or higher.

Student Right-To-Know
In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of our college district to make available its completion and transfer rates to all current and prospective students. A cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students who began in Fall 2004 were tracked over a three-year period. Their completion rate was 24%; these students earned a degree or certificate, or completed 56 transferrable units. Of those students who did not complete a degree, 21% enrolled at another post-secondary institution. These rates do not represent the success rates of the entire student population at the College nor do they account for student outcomes occurring after this three-year tracking period.

Based upon the cohort defined above, a Completer is a student who attained a certificate or degree or became 'transfer-prepared' during a three year period, from fall 2003 to spring 2006. Students who have completed 56 transferable units with a GPA of 2.0 or better are considered 'transfer-prepared'. Students who transferred to another post-secondary institution, prior to attaining a degree, certificate, or becoming ‘transfer-prepared’ during a five semester period, from spring 2004 to spring 2006, are transfer students. Adding the completion and transfer rates together shows that 45% of the cohort completed or transferred within three years. http://srkt.cccco.edu/411/04index.htm

Change of Major
A student may change his/her major with the aid of a counselor or through Admissions and Records. A student who changes a major may need additional time to complete graduation requirements.

Study Load/Excess Units
A. In order to meet graduation requirements in four semesters, the student must complete an average of 15 units of credit each semester. Students may register for up to 18.9 units without permission. A student registering for 19 to 23 units must receive permission. Twelve units qualify students for full-time status in fall or spring. Twenty-three units is the maximum in fall or spring semesters. See the Schedule of Classes for summer or Wintersession maximums.

B. The following criteria will be considered in the petition for excess units:
1. Full-time student status the previous semester;
2. A “B” or better average the previous semester;
3. Difficulty level of the courses involved;
4. Full- or part-time employment;
5. Past record of withdrawals, no credits, or incompletes.

C. A student wishing to carry excess units (19-23) should meet with the following:
1. A counselor who will issue approval; if denied, the student may appeal to:
2. Vice President, Student Services; if denied, the student may again appeal to:

Majors/Programs with Special Enrollment Requirements
Admission into Cabrillo College does not guarantee enrollment into certain programs. The following programs have enrollment prerequisites and procedures which must be completed independently from college admission: Dental Hygiene, International Student Program, Nursing, Radiological Technology, and the Honors Transfer Program.

Transcripts of Previous Education
Applicants who have attended high school within the past five years should have an official transcript sent directly to Admissions and Records in Aptos. If the applicant is not a high school graduate, a transcript of all work completed should be requested from the last high school attended. If the applicant has enrolled in any other collegiate institution before applying at Cabrillo College, an official transcript showing all work undertaken is required. Students are allowed to register in some courses without transcripts on file. However, transcripts are used for prerequisites, transfer, and graduation and are required for financial aid recipients. All transcripts submitted become the permanent property of Cabrillo College, and copies of these transcripts cannot be sent elsewhere. Official transcripts are required for certificates of achievement, associate degrees, and financial aid grade point average verification.

Advising
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1. A counselor who will issue approval; if denied, the student may appeal to:
2. Vice President, Student Services; if denied, the student may again appeal to:
Unit of Credit
A standard college unit of credit represents a minimum three hours of the student’s time each week: one hour of scheduled classroom lecture or recitation and two hours in outside preparation. A longer time is scheduled for laboratory or technical courses where more of the work is done under classroom supervision.

Auditing Courses
Students may audit specified courses in Physical Education and Art after enrolling in these courses the maximum times allowed. A student may audit a course under the following conditions:
1. The course is approved in advance as one of the credit courses for which auditing is permissible;
2. The student who wishes to audit the course has no other option available by which to enroll in the course;
3. The minimum course enrollment of regularly enrolled students has been met;
4. All regularly enrolled students have been given priority, so that the student who wishes to audit is not replacing a regularly enrolled student or causing the course enrollment to exceed the maximum announced class size;
5. The instructor of the course agrees to accept the student on an audit basis;
6. The instructor establishes with the student the minimum performance and attendance standards for participation in the course;
7. No student auditing a course shall be permitted to change his or her enrollment in that course to receive credit for the course.

The Request to Audit form, with instructions, is available from the Cabrillo Extension Office. There is a $15 per unit auditing fee and possible instructional materials fee. The option to audit a specific class is revocable at any time it is deemed to be in Cabrillo’s best interest.

FEES

MANDATORY FEES

Enrollment Fees
Enrollment fees are set by the California Legislature for all community colleges and are subject to change. Enrollment fees are currently $20 per unit for all California residents. For a fee schedule, go to the Cabrillo website: www.cabrillo.edu, or contact Admissions and Records (Financial aid programs are especially important. See the Financial Aid section of this Catalog.)

Health Services Fee
All students will be charged a health services fee. Health Services provides students with medical services, health counseling, crisis and personal counseling, and referral to community resources. Services include: first aid and medical services, crisis counseling, health education and information, TB testing, strep throat tests, pregnancy tests, blood pressure checks, laboratory tests, free condoms, physical exams, counseling by appointment, and HIV testing.

Education Code Section 376355 allows exemption from this fee solely to those students who depend upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination or organization, or for students attending Cabrillo under an approved apprenticeship training program. BOG-waived students are required to pay this fee.

Student Center Fee
This fee was approved by a Cabrillo College student body election, and it is designated solely for the purpose of funding a new student center. The fee is $1 per unit for a maximum of $5 per semester and is not to exceed $10 per academic year. The academic year begins with the fall semester and ends with the spring semester. A recipient of benefits under the Temporary Assistance to Needy Families (TANF)/CalWORKS program, the Supplementary Security Income/State Supplementary program, or General Assistance program may have this fee waived. BOG-waived students are required to pay this fee.

Student Representation Fee
California Assembly Bill 2576 authorizes that a one-dollar ($1) mandatory fee may be collected from community college students during registration. The Cabrillo College Associated Student election of May 1989 resulted in approval for Cabrillo College to assess this fee. This mandatory fee is collected to support student affairs representatives to lobby for student rights before local, state, and federal governing agencies or bodies. This fee may be waived for religious, political, financial, or moral reasons by submitting a written statement with the payment of registration fees.

OPTIONAL FEES

Bus Pass
Every student may purchase a bus pass during or after registering. It is a great bargain compared to the daily bus fare. The bus pass fee for fall or spring is $55 per semester. Bus passes for Wintersession are $20, and summer bus passes are $20.

Parking Fee
This fee is optional. A student may purchase a parking permit for $40 ($20 per term for BOG students). A student who does not purchase a parking permit can pay $2 per day to park in a student parking lot.

A. Parking Permit Regulations
1. Each student must have a parking sticker attached to his/her vehicle if parking on campus.
2. Parking is allowed in any lot except red curb zones, staff and visitor reserved zones, and spaces reserved for people with physical disabilities.
3. Citations are issued for parking violations.
4. Park in marked spaces only.
5. Parking permits are valid for both day and evening.
6. Parking permit is to be displayed in bottom driver’s side of the front windshield.

Children’s Center Fund
An optional $2 fee was approved by student government to assist Cabrillo College students with campus childcare. Every $2 collected provides direct childcare assistance to students who would otherwise be unable to enroll in classes here at Cabrillo College.

Associated Students of Cabrillo College (ASCC)
Students are members of the Associated Students of Cabrillo College. There is a Student Activities Card (SAC) fee that is expected, but not mandatory. The cost to attend and participate in ASCC activities is free or discounted to those who pay the Student Activity Card fee. All others will be subject to an admission charge.
Out-of-State Students/Nonresident Student Fees

Students who have not established California residency are also charged nonresident or international student tuition (nonresident student fee plus the capital outlay fee) in addition to the fees listed above. The fee amount is determined each year by the Cabrillo Governing Board, according to the provisions of Education Code Section 76140. For academic year 2009-2010, students from other states pay nonresident tuition of $194 per unit; nonresidents who are citizens and residents of a foreign country pay $189 ($194 nonresident tuition plus $5 capital outlay fee) per unit, in addition to all fees (including enrollment fees) listed for California residents.

The capital outlay fee may be waived for economic hardship, or for victims of persecution or discrimination in their home countries.

Fee Refunds

Students may claim a refund or reversal of charges for:

1. Classes canceled by the College.
2. A reduced unit load of full-term courses by the deadline (during the first two calendar weeks following the commencement of a semester of instruction) in fall or spring. Consult the summer or Wintersession Schedule of Classes regarding deadlines. Reference Title 5, 58508.
3. A reduced unit load within the 10% deadline for short-term courses (deadlines are available from Admissions and Records at Aptos or Watsonville, or the instructor). All summer and Wintersession courses are short-term courses.
4. Fees collected in error.

If a student is eligible for a refund and the fees were paid by a federal or state financial aid program, the refund will be returned to the appropriate financial aid program.

A $10 processing fee will be charged for all refunds, except for canceled classes. If the refund is $10 or less, it will be applied to the processing fee.

Note: Only students who officially drop their courses by the appropriate deadlines will receive refunds or reversals of charges. Students dropped by faculty will not receive refunds or reversals of charges.

Delinquent Balances: Students with delinquent balances will not be able to add/register or drop courses, or receive transcripts. Students with delinquent balances may also be reported to the California Franchise Tax Board.

Instructional Materials Policy

Cabrillo College may require students enrolled in credit and non-credit courses and programs to buy certain materials, including but not limited to textbooks, tools, equipment, and clothing, if:

1. The instructional and other materials are used in the production of an "end product" that has continuing value to the student outside the classroom, or
2. The instructional and other materials required for the class have a continuing value to the student outside of the classroom.

Textbooks and Supplies

Students must furnish their own textbooks, workout clothes for physical education classes, locks, and supplies.

Laboratory Breakage

Students are responsible for any breakage or loss of equipment assigned to their use.

Returned Check Service Charge

All returned checks are subject to a service charge of $15.

CROSS ENROLLMENT

UCSC, CSU MONTEREY BAY, AND SAN JOSE STATE

Cabrillo students may cross enroll at the University of California, Santa Cruz (UCSC), California State University, Monterey Bay (CSU Monterey Bay) and San Jose State University. Students may take one course. Fees are set by the State Legislature and are subject to change. Enrollment will be on a space available basis. To meet eligibility requirements Cabrillo College students need to:

- have completed at least one term (as a matriculated student) at Cabrillo
- be simultaneously enrolled for at least 6 units at Cabrillo
- have earned at least a 2.0 grade point average at Cabrillo
- have paid appropriate fees at Cabrillo
- have completed appropriate academic preparation as determined by the host campus
- be a California resident (pay California resident fees).

Applications for cross enrollment are available from Admissions and Records at Aptos or Watsonville. Additional information can be obtained by calling UCSC at (831) 459-4412 or at Reg.UCSC.edu or CSU Monterey Bay at (831) 582-3518 or San Jose State at (408) 924-1000.
ACADEMIC FREEDOM

Academic freedom of instructors and students is essential to the mission of the College in order to stimulate intellectual curiosity and inquiry, self-questioning, and to foster the search for truth. To this end, faculty academic freedom shall be assured, subject to limitation imposed by law, by the academic standards of the College and the state, by the rights of students to be free from any reprisals, and by the students’ rights to an objective presentation of the subject matter.

GRADING POLICY

Grades and Grade Points

Course instructors determine the grade awarded to each student. The instructor’s determination is final in the absence of mistake, fraud, bad faith, or incompetence.

Course accomplishment is indicated by seven grades, five of which are passing. Each grade and its value in grade points are shown below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Grade Points per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing, less than satisfactory</td>
<td>1</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>0</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>Pass, satisfactory or better</td>
<td>0</td>
</tr>
<tr>
<td>NP</td>
<td>No Pass, less than satisfactory; completed course without achievement</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal (by the 13th semester week) (see progress probation/dismissal policy)</td>
<td>0</td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
<td>0</td>
</tr>
<tr>
<td>RD</td>
<td>Report Delayed</td>
<td>0</td>
</tr>
<tr>
<td>MW</td>
<td>Military Withdrawal</td>
<td>0</td>
</tr>
</tbody>
</table>

Grade Point Average

A student’s grade point average is calculated by dividing the total number of grade points by the total number of units attempted. Grades of “F” are considered in determining the grade point average. Pass (P) no pass (NP), and grades earned in non-degree applicable courses are not included in calculating the grade point average.

Pass/No Pass Grading System

The purpose of pass/no pass grading is to provide a more appropriate method of evaluation in courses taught for the purpose of establishing a minimum level of proficiency in various subject areas or to evaluate the subjects where fine gradations of achievements are not meaningful. This system is not intended to be used by students in their major courses unless courses are only taught in a pass/no pass mode.

The following regulations implement these two objectives:

1. A pass/no pass grade may be arranged between the student and the instructor in any course for which the option is available. The arrangement must be made within the first 30% of the semester for a full-term course or 30% of the class meetings in a short course.
2. Courses taken by pass/no pass are disregarded in determining a student’s grade point average, but shall be considered in progress probation and dismissal.
3. A student may not apply more than 12 units of courses taken by pass/no pass grading system toward fulfillment of requirements for the A.A. or A.S. degrees. These 12 units may be in addition to units completed in courses graded pass/no pass only.
4. A pass grade is equivalent to a grade of “C” or better, indicating satisfactory completion of course requirements. A no pass grade is equivalent to a “D” or “F,” indicating less than satisfactory completion of course requirements.
5. A student should check with a college counselor concerning transfer of a pass/no pass grade to a four-year college or university.

Incomplete Work

The grade “I” may be recorded when students doing passing work and regularly attending at least 75% of a course are unable to take the final exam or otherwise complete the course because of illness or other unforeseeable emergency and justifiable reasons. It is the student’s responsibility to clear the incomplete grade within one year. A student may not clear an incomplete grade by re-enrolling in the course. The condition for removal of the “I” shall be stated by the instructor in the incomplete contract. This contract shall contain the conditions for removal of the “I” and the default grade should the incomplete course requirements never be met. It will be sent to the student, with a copy to remain on file in Admissions and Records at Aptos until the “I” is made up or the time limit has passed. A final grade shall be assigned when the work stipulated has been completed and evaluated or when the one year for completing the work has passed. A student may petition to the instructor or division, with a copy to the Director of Admissions and Records, for an extension due to unusual circumstances. The “I” shall not be used in calculating units attempted or for grade points.
“W” Grades
The deadlines listed below are for full-term semester courses. Short courses (including all summer and Wintersession courses) have shorter individual deadlines, which may be obtained from Admissions and Records at Aptos or the Watsonville Center, or from instructors.

After the second week of the semester, a student who wishes to withdraw from a course should first consult with the instructor. However, it remains the responsibility of the student to withdraw from a course.

If the withdrawal is during the first four weeks of a semester for a full-term course, the course name and number will not appear on the student’s permanent record. Beginning with the fifth week of a semester and through the sixth week, a student who withdraws from a full-term course will receive a “W” grade. The course name and number and this grade will appear on his/her permanent records.

If a student withdraws between the seventh week of a semester and 75% of the term, the instructor may issue the student a “W,” an “NP,” or “F” grade. The course name and number and the grade will appear on the student’s permanent record. After 75% of the course has elapsed, no “W” will be issued and the student will receive a grade. If a student withdraws from school due to extenuating circumstances such as verified cases of accident, illness, or other circumstances beyond the student’s control, the instructor will use discretion in granting the student an “NC,” “F,” or “W” grade.

Instructors have the sole responsibility for granting or changing all grades in their courses. If instructors are no longer available, incomplete grades may be completed only by Division Deans, based on grade records and subsequent evaluation.

NOTE: In accordance with state regulations, student withdrawals are restricted to a total of four withdrawals per course. After the fourth withdrawal, a letter grade must be issued. However, once a student receives a substandard grade (D, F, NP) in a course, only one repetition of that course is allowed.

“MW” Symbol
The “MW” shall be assigned only for students who are members of an active or reserve military service and who receive orders compelling a withdrawal from courses. Upon verification of such orders, the symbol may be assigned at any time after the period established by the Governing Board during which no notation is made for withdrawal. The “MW” shall not be counted in progress probation and dismissal calculations.

Grade Changes
When grade changes are made because of the alleviation policy or authorized repeating of a course, appropriate annotations shall be entered on the student’s permanent record in such a manner that all work remains legible, insuring a true and complete academic history.

Good Standing
A student will be considered in good standing if the overall grade point average is 2.0 or higher. Students who plan to transfer to a four-year college or university or obtain an Associate Degree must have a cumulative grade point average of 2.0 or higher. Excessive No Pass, Incomplete, and Withdrawal grades will place a student on probation.

Transcript of Cabrillo Work
Upon written request of a student, an official transcript of his/her record will be prepared by the Admissions and Records Office. Two transcripts of the student’s record will be processed without charge. After the first two, there is a $3 charge. Students who need transcripts within three to five working days pay additional rush fees. Students may print their own registration schedules using WebAdvisor: My Class Schedule. Transcripts will not be provided if there is a delinquent charge on the student’s record.

Scholastic Honors
“Honorable Mention” shall be noted for those students who graduate with an Associate Degree or who complete a Certificate of Proficiency with a 3.0 to 3.49 grade point average (GPA). “Honors” shall designate those students who achieve 3.5 to 3.74 GPA.

Those students who graduate with a 3.75 to 4.0 GPA shall be recognized as having achieved “High Honors.” “Honors Scholar” will be designated on the transcript if student has completed 15 units of honors courses and is a participant in the Honors Transfer Program. See page 37 for more information.

CREDIT BY EXAMINATION
As authorized by the California Education Code, Section 78207, credit by examination may be granted if all the following conditions are met:

1. The course is listed in the current Cabrillo College Catalog. Although not every course may be credited by examination, a course to be credited by exam must be currently available and be on a list of appropriate courses kept in the office of the Vice President, Instruction.

2. The student receiving the credit is currently registered in class(es), is in good standing (2.0 grade point average), and has completed a minimum of 12 units at Cabrillo. In special circumstances involving sequential courses in a transfer program or involving certain requirements in an occupational program, a student may appeal to the Academic Council to set aside the 12-unit requirement. Units for which credit is awarded by examination shall not be counted in determining the 12 semester hours in residence toward an A.A./A.S. Degree, nor are they considered part of a semester load.

3. Students who fulfill specific requirements under formal articulation agreements with area high schools and/or Regional Occupational Programs (ROP) may be granted credit without taking further examinations at Cabrillo College.

4. The number of units to be granted is not greater than that listed for the course in the Cabrillo College Catalog.

5. Credit has not been granted previously at the same or more advanced level if the course is in a departmental sequence based on prerequisites.

6. Arrangements for the administration of the credit by examination have been made with an authorized instructor who will agree to administer the examination.

7. The student completes an appropriate Credit by Examination request form, which may be obtained from Admissions and Records at Aptos or Watsonville. The student pays for the units as for other units of credit.

8. The fee for the course is waived for high school students petitioning for credit by examination for articulated high school courses.

9. The student has not previously taken the course and received a substandard grade. Only one credit by exam attempt per course is allowed.

Examinations will be comprehensive enough to reflect the appropriate depth and breadth of the material normally covered in the course for which credit is requested. If the course challenged is part of a sequence, the student will be examined at the highest level s/he chooses and will not receive credit by examination for the lower levels.

Upon completion of the examination, the instructor in charge will verify the number of units to be received and assign an appropriate grade, that will then be recorded on the student’s record.
The student’s grade shall be recorded on his/her academic record, even if it is substandard. The student shall indicate before taking the examination whether s/he wishes to exercise a pass/no pass option. An examination may not be repeated.

The student’s permanent record shall be clearly annotated to reflect that credit was earned by examination.

A list of courses that can be taken on this basis is in the Office of the Vice President, Instruction.

Transfer students should check with their receiving institutions about policies for using credit by examination scores and credits toward meeting admission and/or graduation requirements. Credit by Examination cannot be granted at both the community college and at the four-year college or university, and in some cases the four-year colleges and universities grant more units for credit by examination scores than do the community colleges.

EXTERNAL EXAMINATIONS: ADVANCED PLACEMENT (AP)–INTERNATIONAL BACCALAUREATE (IB)–CLEP

Cabrillo College will grant college credit toward an A.A./A.S. Degree to students who earn scores of 3, 4, or 5 on advanced placement examinations given by the College Entrance Examination Board. Students must send an official copy of the AP result to Cabrillo if it is not posted on their official high school transcript. It is the responsibility of the student to see a counselor and petition for the use of AP credit toward a Cabrillo College degree.

To use AP results for completion of GE requirements for transfer using either the IGETC or CSU GE patterns, the student must request GE Certification from Cabrillo upon transfer. To determine how AP credits will be used at the four-year school for major preparation, please consult the catalog of the transfer school or see a Cabrillo College counselor. Duplicate credit will not be granted to students who have AP scores and the equivalent course or exam in California Government to complete the entire requirement for CSU—please check with a counselor.

The following restrictions apply:

1. These units count toward eligibility for admission. The units may not all apply toward certification of the corresponding GE-Breadth area.
2. Areas of GE-Breadth (A1 through E) are defined in CSU Executive Order 1033. Areas of American Institutions (US-1 through US-3) are set forth in Sections 1A and 1B of CSU Executive Order 405.
3. Students seeking certification in GE-Breadth prior to transfer must have passed the test before this date. The ES exam can clear either B2 or B1 through F09-after that date only Area 1.
4. If a student passes more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate within each area.
5. If a student passes more than one AP exam in physics, only 6 units of credit may be applied to the baccalaureate, and only 4 units of credit may be applied to a certification in GE-Breadth.
6. At most UC additional credit will not be granted if a student takes the equivalent course.
7. The Environmental Science, Physics C (electromagnetism)–3 sem. Or 4 qtr. units may be applied toward IGETC. Therefore, students who complete these exams will be required to complete at least 4 sem. Or 5 qtr. Units to satisfy the minimum required units for IGETC Area 5.
8. The U.S. Government and Politics exam does not cover the CSU US3 (California Government) requirement. Students must take a course or exam in California Government to complete the entire requirement for CSU–please check with a Counselor.
9. The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-natives. Language of A1 and A2 are advanced courses in literature for native and non-native speakers, respectively.

**Use of IB Diploma/Exams for the University of California:**

Students receiving the IB diploma with a score of 30 or above will receive 30 quarter (20 semester) units toward their UC undergraduate degree. The University grants 8 quarter (5.3 semester) units for students who receive IB certificates with scores of 5, 6 or 7 on Higher Level exams. For more information about credit awarded by a particular campus, visit www.universityofcalifornia.edu/educators/counselors/ib

NOTE: Please see a Cabrillo Counselor for use in major requirements, transfer to private institutions and the number of transfer units to UC.

**ARTICULATION WITH FOUR-YEAR UNIVERSITIES**

The Cabrillo College Articulation Office, Room 104, develops both lower division major preparation and general education agreements (articulation) with public four-year universities. These agreements can be found at www.assist.org. Links to these agreements as well as articulation agreements with private schools and universities can be found on the Cabrillo Transfer and Articulation website http://www.cabrillo.edu/services/articulation/info/studindex.htm

**CREDIT THROUGH HIGH SCHOOL ARTICULATION**

Cabrillo College will grant college credit for courses formally articulated with area high schools in occupational/career areas where articulation agreements have been signed between high schools and Cabrillo College. Upon enrolling at Cabrillo College, students who have met the specific conditions of the articulation agreement may petition through the Articulation Office. The students’ high school instructors will provide agreed upon information for college credit. The forms necessary to petition for credit are available at www.cabrillo.edu/services/hsoutreach/OutreachHome/makingthemost.html.

In addition, most area high schools have articulation agreements in place with Cabrillo College for course placement in foreign language and math, based on the level completed in high school. The agreements are available at the same website above.

**REPETITION OF COURSES**

A. Except for the following specified cases, repetition of courses at Cabrillo College will not be allowed. One of the following conditions must be present for the repetition to be allowed.

1. Substandard Grades: A student may repeat a course in which a substandard grade was received. Substandard grade is defined as D, F, or NP. Grades awarded for courses repeated under the above circumstances shall be entered on the student’s record, insuring a true and complete academic history. The previous grades and units will be disregarded in the computation of grade point averages. Students who need to repeat math courses more than twice should meet with a counselor. A course may be repeated only once without an approved petition to the Academic Council.

2. Satisfactory Grades: Under special circumstances, a student may request to repeat a course once for which a satisfactory grade has been recorded (a grade of A, B, C, or Pass). This repetition will be permitted with written permission of the Superintendent/President or his/her designee. Grades awarded for courses repeated under these conditions shall not be used in calculating a student’s grade point average at Cabrillo College and will not be used by four-year colleges and universities to calculate the units or grade point average for admission purposes. Students may repeat courses for which they received satisfactory grades under the following circumstances:

   a. When the student’s previous grade is, at least in part, the result of extenuating circumstances and if the student secures written permission to repeat the course from the involved division.

   b. There has been a significant lapse of time (two years) since the beginning of the last semester of enrollment in the course.

   c. When a student needs to update his/her knowledge of course material due to a significant lapse of time since the course was completed.

   d. When the course is required for recertification or relicensing every two to four years as determined by an outside agency.

3. Repeatable Courses: The College shall identify courses in the Catalog that are repeatable up to a maximum of three times beyond the first enrollment based on the course content differing each time it is offered. Students who repeat the course should gain an expanded educational experience for one of the following reasons:

   a. Active participatory experience in individual or group assignments is the basic means by which learning objectives are obtained.

   b. Skills or proficiencies are enhanced by supervised repetition and practice within class periods. See course descriptions to determine transferability to UC and CSU.

   c. Course repetition limitations are applied per course in visual and performing arts disciplines if the course is in the transfer curriculum. For all other activity courses, the repetition limitation applies to the subject matter. (Extended repetition of certain music courses, as designated in this Catalog, may be permitted for music majors.)

4. Section 504: Repetition is permitted to meet the requirements of Section 504 of the 1973 Rehabilitation Act, 29, USC Section 794.
Academic Renewal

Academic renewal is an option available to those students whose past academic record does not reflect their current demonstrated level of academic performance. The intent of academic renewal is to alleviate such a record and thereby facilitate a student’s progress toward graduation, certification, or transfer.

A student may request that his/her record be reviewed for academic renewal by the Academic Council under the following conditions:

1. Two years have elapsed since the substandard grades were awarded. (Substandard grades are defined as “D,” “F,” or “NP”);
2. The student has subsequently completed 12 units of letter-graded work with a 3.0 grade point average or 24 units of letter-graded work with a 2.0 grade point average;
3. Not more than 30 units may be renewed;
4. A prerequisite course in a sequence of courses within a discipline for which the subsequent course has been completed with a satisfactory grade may not be renewed.

Students desiring academic renewal should obtain a petition from a counselor, who will determine if the conditions have been met. Signed petitions will be sent to the Director of Admissions and Records, who will act for the Academic Council. If the above conditions are met, the petition will be granted. Cases needing special deliberation will be brought directly to the Academic Council. A student may petition for academic renewal of his/her Cabrillo record with an official transcript from another college or university, if the above conditions are met.

Alleviated grades will have the code “04” (alleviation of unsatisfactory grade) on the transcript next to the grade, or the letter R (Replaced).

Academic renewal at Cabrillo College does not guarantee that other colleges will accept such action. This determination will be made by the respective transfer institutions.

ACADEMIC PROBATION AND DISMISSAL POLICY

The Cabrillo College District Governing Board in accordance with California Administrative Code, Title 5, establishes within the academic regulations, procedures whereby students may petition for reinstatement in Cabrillo College in the event of their failure to maintain the required standards. The standards set forth by the District shall include the following categories:

Academic Probation

1. Probation based on grade point average: A student who has attempted at least 12 letter graded units (A-F), as shown by the official cumulative records, shall be placed on academic probation if he/she has earned a grade point average below 2.0 in all units which were graded on the basis of the grading described in Board Policy 3210.

Progress Probation

2. Probation based on failure to maintain satisfactory progress: A student who has attempted a total of at least 12 units, as shown by the official cumulative record, shall be placed on progress probation when the percentage of all units enrolled, and in which a “W,” “I,” or “NP” have been recorded, reaches or exceeds 50 percent.

Dismissal

3. A student shall be subject to dismissal if in three consecutive semesters, either or both of the following criteria are applicable:
   a. The student’s cumulative grade point average is less than 2.0 GPA in all units attempted.
   b. The cumulative total of units in which the student has been enrolled for which entries of “W,” “I,” or “NP” has been recorded, reaches or exceeds 50 percent.

The two probationary criteria described above will be applied in such a manner that a student may be placed on probation under either or both systems, and subsequently may be dismissed under either or both systems.

Cabrillo College will publish in this Catalog, procedures and conditions for probation and/or dismissal, appeal of probation and/or dismissal, request for removal of probation, and request for reinstatement. Notification to students of probation and dismissal shall occur at or near the beginning of the semester in which it will take effect.

ACADEMIC STANDARDS

Students who do not maintain the academic standards described in Board Policy 6070 are subject to dismissal from Cabrillo College for one semester. Those who wish to return after being unregistered for one semester should meet with a counselor to review academic goals and other relevant concerns to having a successful educational experience.

Students who want to be reinstated immediately should obtain the recommendation of a counselor and give the reinstatement petition to the Director of Admissions and Records for review. If the petition is denied, the student may appeal the decision to the Dean of Student Services.

Students who petition for reinstatement must describe what changes now cause them to expect success, what their educational goals are, and in which courses they wish to enroll in the stated term. Examples of changes may include such conditions as reduced work hours and improved health. Students will be removed from probation when the cumulative grade point average is 2.0 or higher and/or when the percentage of units for which there are entries of “W,” “I,” and “NC,” drops below fifty percent (50%).

PLAGIARISM

Plagiarism is the conscious or inadvertent failure to identify the contributions of others. It occurs when someone borrows any part of another’s work and submits it, as his or her own work without crediting its author. A failure to credit others may result in one or more of the following: a student receiving a failing grade on the assignment, a failing grade for the course, or suspension from the college. Students are expected to know how to credit sources, how to quote and paraphrase, and how to avoid plagiarizing the work of others. If you are unsure, ask your instructor for assistance before you submit your work for credit.
BASIC SKILLS

Enrollment in precollegiate basic skills coursework is limited to 30 semester units of instruction, except for students enrolled in English as a Second Language courses or who are identified as having a learning disability. The 30-unit limit may be waived if students show significant, measurable progress toward the development of skills appropriate to their enrollment in college-level courses.

The Academic Community for Educational Success (ACES) is a program designed to help students succeed at college by helping them connect with other students and work better with their instructors and college staff. Check out the Schedule of Classes to find ACES learning communities in a variety of subjects.

Appeal and Waiver Procedures

1. A student seeking to waive or appeal the unit limitation on enrollment in precollegiate basic skills courses shall submit a petition to an academic counselor. The counselor shall meet with the student to review educational records and faculty progress reports and to develop an academic plan for the next semester. The counselor shall forward the student petition, the plan, student records, and faculty progress reports to the Vice President, Student Services, who shall forward them, with a recommendation, to the Academic Council subcommittee for student appeals.

2. If, after review of student records and faculty progress reports, the Academic Council finds the student has made consistent and significant progress but has not quite attained eligibility for college courses, the Academic Council may grant a waiver. The petition indicating the action taken by the Academic Council shall be given to the Director of Admissions and Records, who shall notify the student of the decision on the waiver.

3. Permission to waive the 30-unit limit will allow the student to enroll in basic skills courses for a period not to exceed one semester and for a maximum of 10 basic skills units. A student may apply for additional waivers, but may receive waivers for a total of not more than 15 units.

4. The student shall sign a form acknowledging his/her knowledge of the limitations of the waiver.

5. Once a waiver is approved, the student will not be barred from registering in basic skills classes up to the maximum unit limit approved.

6. If the waiver is denied, the Director of Admissions and Records shall refer the student to appropriate adult education programs or community services.

7. A student may submit to the Director of Admissions and Records a petition for reinstatement upon the successful completion of coursework or a community services program or/and appropriate scores on the Cabrillo College assessment tests. The Academic Council Subcommittee on Student Appeals shall review the petition and grant or deny reinstatement on the basis of whether the student can demonstrate skill levels that will reasonably assure success in college level courses.

ATTENDANCE

Attendance

Students are expected to attend all classes and labs. Students who are absent because of illness should personally contact their instructors. Illness-related absences do not relieve students from the responsibility of making up any work missed. It is the responsibility of the student to obtain information concerning missed work and to see that it is completed and turned in.
Limitations on enrollment may occur for courses that involve public performance or intercollegiate competition, including but not limited to band, orchestra, theatre, competitive speech, chorus, journalism, dance, and intercollegiate athletics; courses that carry an honors designation; or blocks of courses or course sections designed to create a specific student group.

If a student believes he or she has satisfied the prerequisite at another college or in other ways, the student must bring documentation to a counselor for input into the computer. See additional information in this Catalog, the Schedule of Classes and on the Cabrillo website, www.cabrillo.edu.

CHALLENGING COURSE REQUISITES AND LIMITATIONS

Challenging course requisites and/or limitations on enrollment requires written documentation that explains the alternative course work, background, and/or abilities that adequately prepare a student for the course. Students may obtain a Requisite Challenge Form from the Matriculation Office, SAC 213 or online at www.cabrillo.edu. If space is available in a course when a student files a challenge to the prerequisite or corequisite, the College shall reserve a seat for the student and resolve the challenge within five academic calendar workdays for the Fall and Spring semesters. Winter and summer intersessions have different timelines. Check the Matriculation Office for additional information (831) 477-3242. Reasons for challenging requisites or limitations may include one or more of the following:

1) a requisite course is not reasonably available;

2) the student believes the requisite or limitation was established in violation of a regulation or district-approved process for establishing requisites and limitations;

3) the student believes the requisite or limitation is discriminatory or being applied in a discriminatory manner; or

4) the student has the documented knowledge or ability to succeed in the course without meeting the requisite and/or limitation.

When a student successfully challenges a requisite, the student does not receive credit for the requisite course. As a result, transfer students who successfully challenge a transferable requisite may be missing credit for coursework required by their transfer institution. Transfer students should first consult with a Cabrillo counselor.

We encourage students to take advantage of the Matriculation services, as this will help them progress towards their goals in the fastest amount of time with the correct courses needed for degrees, certificates and transfer.

FINAL EXAMINATIONS

Finals are required in all courses. A schedule of final examinations is published in each Schedule of Classes. Students are to take examinations as printed in the Schedule of Classes. In case of a severe illness that prevents the student from taking the examination at the scheduled period, the instructor should be notified prior to the exam, and as soon as possible the student should arrange with his/her instructor to make up the examination.

VETERANS

Certification of Veterans and Eligible Students for Veteran's Educational Benefits

The academic and progress, dismissal and re-admission policies for veterans and eligible dependents are the same as other Cabrillo students and are described in this Catalog. The policy for certification of veteran's educational benefits requires maintenance of a 2.0 grade point average. Fall and Wintersession grade point averages are reported together.

VA Satisfactory Academic Progress

According to the Department of Veterans Affairs' regulations, students must maintain timely and satisfactory progress toward their educational objectives in order to be eligible for educational benefits. Satisfactory VA academic progress at Cabrillo College is defined as:

1. Enrolling in and completing the certified number of units required by the guidelines governing the program providing the funds:
   a) If you are paid for full-time status (12 or more units), you must complete at least 12 units.
   b) If you are paid for three-quarter time status (9-11 units), you must complete at least 9 units.
   c) If you are paid for one-half time status (6-8 units), you must complete at least 6 units.

2. Attaining a minimum grade point average of 2.0 each semester. Receipt of an "F" or "NP" can reduce benefits if the student did not complete the course.

3. Not having completed more than 70 semester units of postsecondary coursework.

To maintain satisfactory academic progress, you must:

1. Declare an educational objective.
2. Complete an Educational plan with a counselor by the end of your first term.
3. Achieve course completion within your Educational plan with satisfactory grades (2.0 GPA or better).
4. Not have completed excess units of college education (more than 70 semester units or equivalent, including all prior schools attended).

VA Probation

Veterans and eligible students whose grade point average (GPA) for all course work at Cabrillo College falls below 2.0 (C) will be placed on VA academic probation.

Veteran's Removal from Probation

Veterans and eligible students will be removed from VA academic probation upon earning a 2.0 (C) average or better in all course work at Cabrillo College.

Dismissal and Discontinuation of Benefits

A veteran and eligible student who remains on probation for grade point deficiency below a 2.0 cumulative GPA beyond two semesters will have the veteran's benefits discontinued and any further certification of benefits terminated.

VETERANS

Courses offered by Cabrillo College are approved for training under programs administered by the Veterans Administration and the California Veterans Education Institute Act. Educational programs at Cabrillo College, both day and evening, are available. Veterans may be admitted to the College whether or not they are high school graduates. Students enrolled under the G.I. Bill receive stipends based on attendance and unit load.

Veterans Affairs in Admissions and Records, Enrollment Services Center, Building 100, provides services to meet the various needs of the veterans and to assist them in obtaining prompt receipt of their benefits. The office also provides information regarding tutorial assistance.
Each veteran who wishes to receive educational benefits should submit one copy of the Report of Separation from Active Duty, Form DD 214, to Veterans Affairs in Admissions and Records.

Form 22-1999V, Notice of Eligibility for Education or Training Benefits, which is issued by the service education officer upon release from active duty, may be used in lieu of the certified DD 214. All changes in addresses, unit loads, or withdrawals must be promptly reported to Veterans Affairs in Admissions and Records. See below for information regarding certification and VA Satisfactory Academic Progress.

Reinstatement

Veterans who have been dismissed from Cabrillo College may apply at the Admissions and Records Office for reinstatement after one semester of non-payment. Students who apply may be reinstated and recertified after completing a petition and an Educational Plan with a counselor and raising their cumulative GPA to 2.0 or better.

Veterans reinstated who have a grade point average of less than 2.0 for the term immediately following reinstatement shall not be eligible for reinstatement or recertification for a period of one academic year.

In extreme cases in which reinstatement resulted from mitigating circumstances, veterans ineligible for recertification under the above regulations may submit an appeal for specific consideration. Such documented exceptional circumstances beyond the control of the student, which rendered normal academic functioning unlikely or impossible, include hospitalization, injury, and family death.

DEGREES AND CERTIFICATES

Each student should meet with a Cabrillo College Counselor during his/her first semester to develop an Educational plan. A student who completes requirements for an Associate in Arts or Associate in Science (A.A. or A.S.) Degree must apply for such degree and upon verification will receive a diploma. To apply for an A.A. or A.S. Degree, Certificate of Achievement or a Skills Certificate, a student should make an appointment with a counselor at least nine weeks before the end of the semester in which all course work for the degree or certificate will be completed.

The College hosts a College Graduation Ceremony each year. All eligible students who complete requirements for the Associate Degree in Arts or Science or any Certificate and have been awarded the degree or certificate are invited to participate.

ACADEMIC COUNCIL

Enforcement, interpretation, and waiving of academic regulations are handled by the Academic Council, a standing committee of the Faculty Senate.

The Academic Council makes recommendations on matters which affect the academic standards of the College, including consideration of admission, grading, graduation, and course transfer issues.

A student who wishes exemption from any college requirement shall prepare a petition after consultation with a counselor. The administration will apply policies established by the Council to student petitions.

CATALOG RIGHTS

Cabrillo College issues a new Catalog yearly. The courses required for a specific degree or certificate may change from one catalog to the next, and often change during a student’s tenure. For the purposes of meeting graduation requirements based on catalog rights, students may elect to meet the requirements of either:

1. The Catalog which was in effect at the time the student began his/her course work at Cabrillo, or
2. Any Catalog that is or has been in effect during the time that the student has maintained continuous enrollment before graduation.

Students maintain catalog rights by continuous enrollment at Cabrillo College. Continuous enrollment is defined as completion of at least one course per academic year. Documented military or medical leave, not exceeding two years, will not be considered an interruption of enrollment.

COURSE UNAVAILABILITY

A student’s academic progress toward a degree or certificate should not be impeded due to course unavailability. Therefore, if a course in a designated field of study has not been taught for three consecutive semesters, the Program Chair, or in her/his absence, the Division Dean, in consultation with the appropriate department representative, will stipulate another course in lieu of the course required for graduation.

SUBSTITUTION OR WAIVER OF GRADUATION REQUIREMENTS

Cabrillo College recognizes that a disability may preclude a student from demonstrating required math, reading, and writing competencies or from completing course requirements necessary for an A.A. or A.S. Degree in the same manner in which non-disabled students are expected. The College also recognizes the need to accommodate students with documented disabilities to the greatest extent possible without compromising a disabled student’s course of study and without compromising the integrity of any student’s degree. Contact the Disabled Students Programs and Services office at (831) 479-6379 for further information.
PRIVACY RIGHTS OF CABRILLO COLLEGE STUDENTS: ANNUAL NOTIFICATION

The Family Educational Rights and Privacy Act (Section 438, Public Law 93-380) requires that educational institutions insure access to official education records directly related to the student; that the College provide hearing opportunities to challenge such records on the grounds that they are inaccurate, misleading, or otherwise inappropriate; that the College obtain student’s written consent before releasing personally identifiable records information to previously unspecified persons and agencies; and that these rights extend to present and former students of the College.

1. Education records generally include documents and information related to admissions, enrollment in classes, grades, and related academic information.

2. The Director of Admissions and Records has been designated Records Officer as required by the Act. Education records will be made available for inspection and review during working hours by presently and formerly enrolled students within five days following completion and filing of a request form with the Records Officer.

3. If these informal proceedings do not settle the dispute with the student’s records, the student may submit a request in writing to the Designated Officer, the Vice President, Student Services, on forms provided by that office. The Designated Officer will then assign the matter within 10 school days to a Hearing Officer.

4. During the informal proceedings, the Records Officer may make such adjustments or changes not constituting interference of integrity, at the conclusion of which the Records Officer will render a decision to the President of the College, who will make the final decision of action to be taken.

5. The act provides that the College may release certain types of Directory Information unless the student submits in writing to the Records Officer that certain or all such information not be released without the student’s consent. Directory Information at this college includes: (a) student name, (b) participation in recognized activities and sports, (c) dates of attendance, (d) degrees and awards received, (e) the most recent previous educational agency or institution attended.

6. A copy of the College Policy, Section 438, (P.L. 93-380) and other pertinent information is available for review and inspection in the Records Officer’s office during normal working hours.

ACTIVITIES AND ORGANIZATIONS

Student Affairs Office

The operational hub of extracurricular activities on campus is the Student Affairs Office; it also serves as the student-related campus information center.

The Student Affairs Office is fully equipped to assist individual students and student groups in coordinating activities. Located in the Student Activities Center East, (831) 479-6378, this office organizes a wide range of activities, events, services, and programs which include but are not limited to the following: student club information, ASCC Student Senate, social and educational programming, leadership development opportunities, flyer and poster approval, housing board, student activity card, bus pass and parking permit information.

Student Senate at Cabrillo College

The Student Senate has two major roles. First, to be the formal, official “voice of the students,” the student group who voices the needs, wishes, and concerns of the students to the staff, faculty, and administration. Through student representation, students also have their concerns heard at the state level. The second role is to network with clubs and organizations on campus to provide services, programs, and activities for the Cabrillo College student community.

Campus Clubs and Organizations

All students are encouraged to get the most out of their college experience by participating in extracurricular activities while attending Cabrillo College. Joining a club—cultural, social, or special interest—is one way to enhance the College experience. Clubs are organized to involve the student in specialized fields of interest allied with his/her academic major, personal interest in a particular activity, or special service to the College or community. For a complete list of Cabrillo College clubs, stop by the Student Affairs Office.

Students and Shared Governance—Campus Committees

Students are appointed by the ASCC Student Senate to serve on important college governance committees. If you are interested in serving on a Cabrillo College committee, stop by the Student Affairs Office in the Student Activity Center East, and leave a message for the Student Senate President or Coordinator of Student Activities.

For more information visit: www.cabrillo.edu/associations/studentsenate/
Publications

The most frequently issued campus publication is the student newspaper, The Voice, produced by students enrolled in journalism classes. It comes out every two weeks during the school year. Students also produce a literary magazine, the Porter Gulch Review, which comes out once a year.

Alpha Gamma Sigma

Located in Student Activities Center East, Alpha Gamma Sigma, the California Community College Honor Scholarship Society, is a statewide organization having chapters in more than 80 community colleges. The Cabrillo College chapter, Gamma Phi, was chartered in 1961 and recruits new members at the beginning of each fall and spring semester from among students who have completed 12 units of community college work with a cumulative grade point average of 3.0 or higher. Life members of CSF as well as those students who earned a cumulative GPA of at least 3.5 in high school may also apply for membership in Alpha Gamma Sigma during their first semester at Cabrillo.

The purpose of Alpha Gamma Sigma is to foster, promote, maintain, and recognize scholarship among community college students. The Gamma Phi chapter expects that members will, in addition to maintaining a GPA of 3.0 or higher, participate in various chapter, college, or community activities of their choice.

More detailed information concerning Alpha Gamma Sigma’s activities, membership requirements, and special scholarship opportunities are available from the club’s officers, their faculty advisors, or at www.cabrillo.edu/associations/icc/AlphaGammaSigma-GammaPhi.html.

Athletics

Cabrillo College is a member of the Coast Conference of the California Association of Community Colleges. The College enters into conference competition for men in football, golf, water polo, basketball, baseball, tennis, soccer, and swimming; and for women in swimming, basketball, soccer, softball, tennis, and volleyball. Members of the Coast Conference are Monterey Peninsula College, Hartnell College, Gavilan College, Ohlone College, Cañada College, De Anza College, Foothill College, Skyline College, Mission College, Cabrillo College, Chabot College, College of San Mateo, City College of San Francisco, West Valley College, and San Jose City College.

Intercollegiate athletic competition is governed by the Coast Conference and the California State Community College Athletic Code. Obtaining clearance for athletic eligibility often requires considerable checking of records and code provisions. These procedures should be started well in advance of the opening of each athletic season. The Division Dean of the Health, Wellness, Physical Education and Athletics Division in consultation with the Athletic Director will interpret the State Athletic Code and Conference regulations for all persons concerned. Students will be assisted in establishing athletic eligibility.

Recruiting, proselytizing, and soliciting of an athlete who is a non-district resident by any member of the college or its employees is forbidden.

BOOKSTORE

The Cabrillo College Bookstore is located on the ground level of the Student Activities Center. The new Bookstore carries materials required for courses including a large selection of used textbooks. The expanded selection also includes reference books, supplies, snack and gift items and Apple computers and software. Apple products are sold at great academic pricing discounts. Textbooks are available for purchase at the beginning of each term in store and on the web at: www.cabrillobooks.net.

The Bookstore is open extended hours the first week of school and extended refund periods for textbooks are also posted at the beginning of each semester. Used book buyback happens during finals week of fall and spring semester.

The Watsonville Center bookstore located at 318 Union Street carries textbooks, supplies and snacks.

CHILDREN’S CENTER

The Cabrillo College Children’s Center is accredited by the National Association for the Education of Young Children (NAEYC). The Center provides half- and full-day programs for children ages 6 months through 5 years and their families. The Jack and Elena Baskin Children’s Center, the Margo Lynn Trombetta Infant Center, and the Child Development Lab classrooms are integral parts of the Early Childhood Education Department. The five-classroom program offers student, faculty, and staff parents a supportive place to learn, grow, share, and gain support in facing the realities of child rearing in our fast-paced and complex world.

Children and families enrolled in the Center’s programs represent a range of cultural, ethnic, economic, and linguistic diversity. Teachers, students, families, and faculty work together to build an accessible, culturally responsive, and high-quality program that serves as a model and observation site for Cabrillo, UCSC, and teachers from around the state. Carefully selected learning activities facilitate intellectual development, self-discovery, and competency for all ages. These programs support children as they explore, learn, and make discoveries about the world in which they live. Together, families and students interact, ask questions, and gain insights into children’s behavior, and into the role of adults in supporting them as they grow. Lifetime friendships are often created.

The Children’s Center is supported by the College general fund, grants, and parent fees. The California Department of Education Child Development Division provides funding for half- and full-day childcare based on income and need. Families can apply for enrollment at the birth of a child. Applications are valid for one year, are renewable, and can be obtained through the Children’s Center Office in Building 1500, on the ocean side of campus. Call (831) 479-6352 for information or mailing.

COMMUNICATIONS

No telephone messages for students will be accepted by the College, and mail should not be addressed to students in care of the College. To reach students in an emergency, contact the Sheriff’s Office, Room 955, (831) 479-6313.
COUNSELING

The Counseling Division’s mission is to “promote optimal learning and psychological wellness so that students will ultimately become active, contributing members of society.” The comprehensive college counseling program encourages the academic, personal, social, and career development of all students. The Counseling Division also provides courses and workshops in college success, career planning, study skills, essay writing, general transfer requirements, and other topics as needed. Counselors provide students with counseling to help them with self-exploration, personal development, decision making, and career/life planning as it relates to their college experience and their educational goals. Counselors help students with transfer admission agreements (T.A.A.s) for some campuses of UC and CSU and private universities. For more information or to set up an appointment, call (831) 479-6274. For the Watsonville Center, call (831) 477-5134. Personal counseling is available on a limited basis. (See Health Services.)

The Division is staffed by professionally trained counselors who provide academic counseling for occupational and two-year degrees, and transfer to four-year colleges. Academic counseling provides students with information about the requirements for the certificates, associate degrees, and occupational programs offered at Cabrillo. Students are encouraged to develop educational plans to help them achieve their goals. Counselors provide students who plan to transfer with information about four-year college admissions and programs. Students and counselors work together to make informed decisions and plans that will take into account student goals, admissions and general education requirements, and important preparation for majors and competitive programs.

DISABLED STUDENTS PROGRAM AND SERVICES (DSPS)

The Disabled Students Program and Services (DSPS) offers a variety of services to enable students with disabilities to function independently in the educational environment. The objectives of our services are to integrate and mainstream students with disabilities into general campus programs and activities.

The following services are provided to students enrolled through the DSPS Office in Room 810: counseling and advising, tutorials, academic support referrals and coordination, interpreters, note takers, special classes, special equipment, on-campus transportation, special parking, priority registration, test proctoring, liaison with local, state and federal agencies, specialized adaptive equipment, and a high-tech center with computer adaptations. For assistance, phone (831) 479-6379 or (831) 479-6370, or fax (831) 479-6393; TTY (831) 479-6421.

EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOPS–CARE)

Extended Opportunity Programs and Services (EOPS/CARE) is a state-funded program for full-time Cabrillo students identified as economically and educationally disadvantaged. Students served include, but are not limited to, re-entry women and men, ethnic minorities, English as a second language speakers, and students with disabilities. Services available to eligible students include Cabrillo College EOPS/CARE orientations, financial assistance, academic skills assessment, personal and vocational counseling, educational and career planning, student advising, tutorial and study skill assistance, and campus resource and community agency referrals. Interested students may contact the EOPS office, Room 907 or 910, or call (831) 479-6305 for more information.

Eligibility for Cooperative Agencies Resources for Education (C.A.R.E.) include: a student must be EOPS eligible, be single, head of household, and have at least one dependent child under age 14 and currently receiving CALWORKS cash benefits. These students are eligible for the services mentioned above and more.

FAST TRACK TO WORK (FTTW)

The Fast Track to Work Program (FTTW) provides support services to students receiving benefits from specific grant programs such as CalWORKs cash aid, the Workforce Investment Act, or the Food Stamps program. FTTW helps students to identify and start on a career track that will lead to a family-supporting income.

The FTTW office is located in Room 802 and is open Monday–Thursday 8:00-5:00 (closed 12:00-1:00 pm), and Fridays 8:00-noon. Eligible students are encouraged to call or drop by for more information. The office provides academic counseling, peer advising, job retention and financial literacy classes, resource and referral information, liaison with the granting agency, and, for CalWORKs students only, childcare funding and work-study jobs. Call (831) 479-6344. See our website and blog at www.cabrillo.edu/services/fttw/.

FINANCIAL AID

Financial Aid is administered in compliance with federal and state regulations and district policy. Financial Aid regulations assume parents and students have the primary responsibility for meeting college costs and that financial aid is a resource to bridge the gap between the cost of education and the family’s ability to contribute. The expected family contribution is determined by a federally approved need analysis methodology that analyzes the family's financial strength. Eligibility is restricted to students who are enrolled in an eligible program and are working toward a degree, certificate of achievement, or in a transfer degree program. In addition, students must be U.S. Citizens or permanent residents of the United States and must maintain the Standards for Satisfactory Academic Progress.

The Financial Aid and Scholarships Office determines the amount of federal financial aid that a student has earned in accordance with federal law. Students who receive federal financial aid (Pell, FSEOG, Academic Competitiveness Grant, or Stafford Student Loans) and do not attend any classes will be required to repay all of the funds they received. Students who withdraw from all classes prior to completing more than 60% of the semester will have their financial aid eligibility recalculated based on the percentage of the semester completed and will be required to repay any unearned financial aid they received. Students who plan on withdrawing should file an Intent to Withdraw form with the Financial Aid and Scholarships Office.
At Cabrillo College a student’s withdrawal date is:

- The date the Admissions and Records Office or the Financial Aid and Scholarships Office is notified, or
- The midpoint of the semester if the College is not notified, or
- The last date of attendance in a class as determined by the instructor.

To apply for financial aid programs administered by the College, students must file a Free Application for Federal Student Aid (FAFSA) listing Cabrillo College, Title IV Code #001124, among the colleges to receive the information. Financial aid applications are available every year beginning in January for the following school year. Students who apply annually by March 2 are given priority consideration by Cabrillo and meet the Cal Grant deadline for state grants. Awards are contingent upon available funds. Cabrillo College participates in the following federal, state, and institutional financial aid programs:

**Federal Pell Grant**

Federal Pell Grants are available only to undergraduate students who have not received a bachelor’s degree. The grant amount is determined by a formula that considers the student’s enrollment status and expected family contribution. For 2009-2010, annual awards range from $486 to $5350.

**Federal Supplemental Educational Opportunity Grant (FSEOG)**

These funds are awarded to students who have the highest need, have attempted less than 90 units, and are eligible for Pell Grants. Students receiving FSEOG funds must be enrolled in at least 6 units per semester at Cabrillo College. Students must file a FAFSA by March 2 to receive priority consideration, as there are insufficient funds to meet the needs of all eligible students. Awards are made on a first-come, first-serve basis to eligible students. The average annual award is $400.

**Academic Competitiveness Grant (ACG)**

ACGs are federal grants for first and second year students, who are enrolled at least half time (6 or more units), have completed a rigorous secondary school program of study, have not been previously enrolled in a program of undergraduate education, are U.S. citizens or permanent residents of the United States, and Pell Grant recipients, will be awarded. First year students are those who have graduated from high school after January, 2006 and second year students are those who have graduated from high school after January, 2005, and have completed 30 units with at least a 3.0 GPA. First year award is $750; the second year award is $1,300. Depending on the number of awards, these amounts could be reduced.

**Chafee Grant**

This is a competitive grant for students who intend to teach or supervise in the field of Early Childhood Education. Grant recipients must agree to provide one full year of service in a licensed childcare center for every year grant funding is received and are required to complete a Service Commitment Agreement prior to receiving payment from the program. To be considered for this award students must have filed the FAFSA, be eligible for financial aid, and complete a Child Development Program Application by June 2, 2009. The annual award is $1,000 at a community college, $2,000 at a CSU/UC.

**Cal Grants**

To qualify for a state Cal Grant A, B, or C, students must be residents of California and file the FAFSA by March 2. An additional deadline of September 2 for community college students allows them to be considered for a second round of competitive awards.

The Cal Grant Program consists of Entitlement and Competitive awards. Entitlement awards are guaranteed to students who have graduated from high school in 2002-03 or later and meet the eligibility requirements. Awards are offered on a competitive basis to those students who did not receive entitlements. They are not guaranteed.

New Cal Grant applicants must mail a certified Cal Grant Grade Point Average Verification Form to the California Student Aid Commission (CSAC) by March 2. Students are advised to submit the GPA Verification Form to the appropriate school at least 10 days in advance of the deadline. Students awarded a Cal Grant A will have their awards put on reserve until they transfer to a four-year California college or university, as these funds are credited toward tuition fees. Students awarded a Cal Grant B receive a stipend to help cover living expenses; if transferring to a four-year California college, students receive tuition assistance in addition to the stipend. Cal Grant C awards are for students who are enrolled in one- or two-year vocational programs and intend to receive a certificate of achievement or A.A. or A.S. Degree at Cabrillo College.

**Board of Governors Enrollment Fee Waiver (BOG)**

This is a state program that waives community college enrollment fees. Students must be residents of California and either meet specified income criteria or be a current recipient or dependent of a recipient of TANF/CalWorks, SSI/SSP or General Assistance, or have a dependent fee waiver from the Veteran’s Affairs Department, or Congressional Medal of Honor or 9-11 dependent, or dependent of a deceased law enforcement/fire suppression personnel killed in the line of duty, or have been determined to be eligible through the FAFSA. The deadline to apply for BOG is the last day of the term. Eligibility continues for the remainder of the terms within the school year. BOG Applications must be completed each academic year beginning in the fall term and are available at the Financial Aid and Scholarships Office, at the Aptos campus or Watsonville Student Resource Center, at the Scotts Valley Center, in the Schedule of Classes or online at www.cabrillo.edu/services/finaid.
Federal Work-Study (FWS)

Work-Study is a federally funded job program. Work-Study awards are earned by working at a job on the Cabrillo campus or with a non-profit or public agency. Payment is made on a monthly basis as earned. Students must file a FAFSA and indicate their interest in Work-Study on the application. Priority is given to eligible students who file by March 2 and awards are made on a first-come first-serve basis. Students must be enrolled in at least 6 units per semester and making satisfactory academic progress to remain employed under this program. The average annual award is $6000.

Federal Stafford Loans

Stafford Loans are a form of financial aid and must be repaid with interest. Students who have demonstrated financial need may apply for a Subsidized Stafford Loan. The federal government pays the interest on subsidized student loans while students are in enrolled at least six units and during a grace period afterward. Students who are not eligible for a subsidized loan and do not have financial need as calculated by the Financial Aid and Scholarships Office may apply for an Unsubsidized Stafford Loan. The interest on unsubsidized student loans begins immediately and is not paid by the government. The interest rate on the Subsidized loan is fixed at 5.6% and the Unsubsidized Stafford Loan is fixed at 6.8%. To apply for Stafford Loans, students must file a FAFSA, and pass an online Entrance Loan Exam and complete a loan request packet. All Stafford Loan borrowers must be enrolled and attending in a minimum of 6 units. Loan maximum amounts are based on grade level and eligibility. Parents of dependent students may borrow funds from the Parent Loan for Undergraduate Students (PLUS) Program. The interest rate is fixed at 8.5%.

HEALTH SERVICES

Student Health Services provides a variety of health and education-related services in Room 912, adjacent to the Student Center in the 900 Building at the Aptos campus, and during limited hours at the Student Resource Center at the Watsonville Center. Medical services, including assessment, diagnosis, and treatment, are provided by registered nurses and family nurse practitioners for common illnesses, minor injuries, and monitoring of chronic conditions such as asthma and hypertension. Crisis counseling is available on a walk-in basis with health center nurses, and on-campus appointments for short term personal counseling can be arranged through the Health Center staff.

First aid services, over the counter medications, emergency birth control, and condoms are available on a drop-in basis at the Health Center. Testing services available include low-cost lab services, TB testing, HIV/AIDS testing, pregnancy, and strep tests. Routine immunizations are offered at low cost to students.

Physical exams and wellness assessments are offered to all students, and mandatory entrance screenings are provided for all Allied Health Programs, including Associate Degree Nursing, Radiologic Technology, and the Medical Office Assistant program. Student Health Services provides TB screening for all adults associated with the Cabrillo College Children’s Center. In addition, work-related physicals for students with off-campus employment are provided.

Reproductive health services are available at the health center through a contractual relationship with Planned Parenthood Mar Monte, allowing students convenient, low-cost access to these programs.

Health education and wellness enhancement are a major focus of the Health Services staff, not only for students, but for the entire campus community. Health fairs, immunization clinics, screenings, and educational materials are provided to faculty, staff, and students.

Limited hours and services are also available at the Watsonville Center through the Student Resource Center in room 4320. Call (831) 477-5134 for information.

HONORS TRANSFER PROGRAM

Cabrillo College provides opportunities for student enrichment and recognition through an honors program that: 1) promotes academic excellence; 2) benefits students of exceptional academic preparation, ability, creativity, or motivation; and 3) enhances faculty curriculum development through close involvement in the teaching of such students.

Honors designated coursework shall extend or deepen students’ knowledge of a particular field or permit students to pursue learning beyond the scope of existing courses. Thus, honor students will be challenged and encouraged to fully realize their potentials and abilities.

Honors Transfer Program

The Cabrillo Honors Transfer Program provides an enriched educational experience through stimulating seminars, sophisticated literature and outside research. The goal is to encourage Cabrillo students to seek challenges and pursue excellence. We offer an honors learning community that serves the highest potential, high achieving students of our country. Universities are looking for outstanding students who have completed more than the minimum transfer requirements. As a result, competitive universities actively pursue honors students.

Honors students will benefit from priority admission or a competitive edge in the admissions/transfer process depending upon the college or university to which they apply. They will additionally receive from Cabrillo the following: scholarship advising and opportunities, research support from the College’s award-winning library staff, counseling and transfer assistance, recognition of honors coursework on transcripts, smaller class size, faculty mentors, a stimulating environment, membership in an honors transfer community of students, enriched curriculum, and a strong support network.

The minimum qualifications for students applying directly from high school include a minimum 3.5 high school GPA or 1900 SAT or 29 ACT test scores. Students who have completed high school and are enrolled in college (Cabrillo or another college) need a minimum 3.3 cumulative GPA. Verification of writing proficiency, one letter of recommendation, and an essay are also required to complete the application for the Honors Transfer Program.

If a student thinks he/she may not presently meet the entrance requirements, he/she may still submit an application for consideration. Visit our website for additional information and application materials: www.cabrillohonors.org

Honors Scholar Designation

To achieve the Honors Scholar designation, students must complete four (4) or five (5) honors courses in a minimum of 15 semester units with a transferable GPA of 3.5 or higher. Each completed honors course is designated as Honors on a student’s transcript. Students who complete the 15-unit program receive the designation Honors Scholar posted on their transcript and their accomplishment is announced at Cabrillo’s graduation. Both honors courses and the Honors Scholar designation will stand out on university applications and improve students’ chances of being admitted to selective colleges and universities.

For more information contact the Honors Transfer Program, (831) 477-3505 or visit our website at www.cabrillohonors.org.
LEARNING SKILLS PROGRAM

The Learning Skills Program is designed to serve students with specific Learning Disabilities and Attention Deficit Disorder that can effect classroom performance, making it difficult for these students to succeed without classroom accommodations, specific compensatory techniques, remedial instruction, assistive technology, and/or other support services.

Students may be self-referred or referred by instructors, counselors, and community agencies. Students requesting a learning disability assessment must first complete the intake process. When appropriate, individual diagnostic testing is then administered. Individualized recommendations and strategies will be based on the results of this assessment. Students may also be eligible for the program if they have current valid documentation from an appropriate outside agency. Instruction in the Learning Skills Program is designed to help students learn techniques to ensure their success in other courses. Interested persons are encouraged to call (831) 479-6220 for further information and appointments.

LIBRARY

The Robert E. Swenson Library plays a central role in the use of information resources at Cabrillo. With rapid technological change and an expanding array of information resources, information literacy has become an important skill in both higher education and the workplace.

Librarians help students, faculty, and staff recognize when information is needed and then locate, evaluate, and use the needed information effectively. Approximately 96,000 items (print books, electronic books, and DVDs/videos) are listed in the online catalog in the library. The library provides a wide selection of full text database subscriptions to support instruction. The list of online resources includes EBSCOhost Academic Search Premier, Ethnic Newswatch, Health Source Nursing/Academic, Literature Resource Center, National Newspapers 5, Historical New York Times, Britannica Online, AccessScience, ArtStor, Grove Music Online, Grove Art Online, Rand California, CountryWatch, CQ Researcher, the Oxford English Dictionary, and access to over 21,000 electronic Books. There are over 4100 video/DVD titles. Smooth access to all of the resources is available from any one of the more than 45 workstations in the Reference area of the library. Remote access to all of these electronic resources is also available. The library building has wireless access to the Internet and to these online resources.

The library has 11 small group study rooms that seat anywhere from six to eight students. Available on first-come/first-serve basis, these rooms are for small groups of students to work collaboratively on research projects.

Special needs are accommodated in the library by the provision of:

- Three workstations with the Kurzweil 3000 program that enables conversion of print to electronic text which can be read to the user;
- Two workstations equipped with "JAWS" software which reads screens aloud and Zoomtext which enlarges print;
- A CCTV enlarging reader

At the library, students can expand their search for information resources relevant to their studies. Students are aided by librarians to become trained researchers in the complex and changing world of information literacy.

Library hours during fall and spring semesters:

Monday-Thursday 8:00 a.m.-8:00 p.m.
Friday 11:00 a.m.-4:00 p.m.

For vacation and summer session hours phone (831) 479-6473, or check the library homepage at http://libwww.cabrillo.edu. For a librarian’s help with library resources, phone (831) 479-6163.

LOST AND FOUND

Lost and found articles are turned in to the Student Affairs Office/Reception Desk in the Student Activities Center (East Wing) or to the Cabrillo College Sheriff’s Office in Building 955 (Green Modular building on Cabrillo College Drive). Articles not claimed at the end of each semester are disposed of in accordance with state law.

MATH LEARNING CENTER

The Math Learning Center (MLC) is a free drop-in math tutoring service for Cabrillo College math students and students taking courses having math prerequisites. The MLC was created not only to help students develop problem-solving skills but also to help them obtain the confidence and ability to tackle math problems on their own. By signing up on a waitlist, students receive help on a first-come/first-served basis. To reduce the waiting time for help, tutors help each student with one or two problems before moving to the next student on the list. Students may sign up on the list as often as needed while they are in the MLC. Typically, students use the MLC’s services to get a jump-start on problems they run into while doing their homework.

In addition to drop-in tutoring, students may check out calculators, textbooks, textbook video tapes, and various learning software packages for use in the MLC. Also provided are exam review sessions and study sessions when coordinated with the instructor. To use the MLC during the semester, stop by during the first few weeks to register for services. To find out more about the MLC call (831) 477-5696 or visit the website at www.mlc.cabrillo.edu to see what is happening in the MLC at any time or sign-in for online tutoring.
MESA

MATHEMATICS, ENGINEERING, SCIENCE ACHIEVEMENT

MESA is one of the country’s oldest and most successful programs to assist
students in preparing for careers in math-based fields. Established in California
in 1970, MESA programs exist at secondary, university, and community college
levels. Cabrillo’s MESA Program sponsors the MESA Study Center and pro-
vides:

• Academic Excellence Workshops—participating students meet twice a
  week to sharpen skills and improve understanding for selected math,
  physics, or engineering courses;
• A study center equipped with computers and a small reference library
  of science and math textbooks, and videos; and
• Drop-in and group tutoring in math and sciences provided by math and
  science professionals and by students.

Another benefit available to all students in the MESA Study Center is the
opportunity to be a member of a supportive community founded on academics,
the setting of high goals, and steady perseverance toward these goals. This
sense of community and shared purpose usually has a strong positive effect on
retention and success.

Extra services and opportunities are offered to students who qualify for
MESA membership. These services and opportunities include:

• Free printing and copying in the Center
• Field trips to industry sites, science museums, and prospective transfer
  universities;
• Academic counseling to establish education plans and ensure suc-
  cessful transfer in science and math majors;
• Scholarships, internships, leadership retreats, summer research pro-
  grams;
• Long-term calculator, computer, and locker checkouts; and
• Sponsored student travel to professional conferences.

Students intending to transfer in a math or science major who are also eli-
gible to receive financial aid or who are the first in their families to attend col-
lege may be eligible for MESA membership. To find out more, come by the
MESA Transfer Study Center in Room 714, call (831) 479-6503, or visit the
website at http://www.cabrillo.edu/services/mesa.

OPEN ACCESS COMPUTER LAB

Students may use the Open Access Computer labs for word processing,
and Internet access. The Open Access Labs are located in the Library, the
Aptos CTC (Building 1400) and Watsonville CTC (Room 4510).

READING CENTER

The Reading Center at Cabrillo provides reading instruction for students of
nearly all reading abilities. Courses range from basic reading to transfer level
speed reading and critical reading. In addition, the Reading Center offers open-
entry/open-exit individualized reading and vocabulary labs for those who prefer
self-paced work.

Reading Center services are provided at both the Aptos and Watsonville
campuses. Reading Center hours will vary. See the Schedule of Classes for days
and hours, or phone (831) 479-6573 or (831) 479-6442.

SCHOLARSHIPS

Each year Cabrillo College awards a number of scholarships ranging in
amounts from $500 to $2500. Awards are made on a competitive basis using
the criteria for selection established by the donors of these scholarships.
Consideration is given to scholastic achievement, academic promise, financial
need, and community and campus involvement. The application deadline is
generally in early December. Additional information regarding application pro-
cedures for scholarships may be obtained from the Financial Aid and
Scholarships Office, either at the Aptos campus or Watsonville Student
Resource Center.

Extended Opportunity Program and Services (EOPS)

EOPS grants are awarded through the Financial Aid Office to students with
verified exceptional need who qualify under state program guidelines as deter-
mined by the EOPS Office.

Cooperative Agencies Resources for Education (C.A.R.E.)

C.A.R.E. is a state-funded program for EOPS eligible students who are sin-
gle heads of household with children up to 14 years of age currently receiving
CalWORKS.

STUDENT EMPLOYMENT

The Student Employment staff actively serves Cabrillo College students and
graduates who are seeking employment in full- or part-time positions off cam-
pus. The Student Employment Office is also the central office for all on-campus
student jobs, including Work Study and Fast Track positions. All on- and off-
campus student jobs are listed online on the Student Employment web site.
Additionally, all hiring paperwork for on campus student jobs is processed by
the Student Employment Office. Workshops on job seeking skills are offered
each semester, and individualized assistance with resumes is available by
appointment. Phone, fax and computer access to jobs is available to students
through the center, which is located in Room 804.

The Student Employment Office enjoys the confidence of a wide range of
employers who regularly list job openings and to whom qualified students are
referred. The Student Employment service is integrated with the total educa-
tional process of the College and works cooperatively with occupational educa-
tion departments, the College Career Planning Center, Financial Aid Office,
and Cooperative Work Experience Education. Call (831) 479-6413 for addition-
al information.
STUDENT RIGHTS AND RESPONSIBILITIES

Student Rights—The Cabrillo Community College District is committed to the protection of the individual rights of all students. Pursuant to Title VI of the Civil Rights Act, 1964, the protection of these rights is guaranteed in regard to sex, race, color, national origin, language, religion, age, disability, or sexual orientation.

Should the situation arise in which a Cabrillo College student suspects that these rights have been violated in the application of district policies or local, state, or federal law, students will be given the opportunity to seek resolution of further complaint through an established procedure.

Administrative regulations describing the procedures for student rights and responsibilities are available in the Office of the Dean of Student Services, Room 914.

Student Responsibilities—All students who register for classes at Cabrillo College have the responsibility of attending class regularly, completing assignments on time, doing their own work (not plagiarizing), demonstrating respect for faculty, administration, staff, and all Cabrillo College community members. All Cabrillo College students have the responsibility of respecting the College campus, equipment, and materials and reporting abuse or vandalism of such to the proper authorities. All Cabrillo College students have the responsibility of demonstrating professional behavior and following the guidelines described in the Student Rights and Responsibilities Handbook.

STROKE AND ACQUIRED DISABILITY CENTER

The Stroke and Acquired Disability Center offers a series of special classes for adults with functional loss, and for caregivers, including mobility and fitness skills, independent living skills, speech, hearing, and language skills, and dealing with disabilities. Classes are located in the Stroke Center in Delaveaga Park, Santa Cruz. Transportation is available through Metro ParaCruz. A physician’s approval will be required. Call (831) 425-0622 for enrollment information.

TRANSFER/CAREER CENTER

The Cabrillo Transfer/Career Center is designed to provide services to students who plan to transfer to four-year colleges and universities and to encourage and facilitate the transfer of students who have been historically underrepresented in higher education. Students are encouraged to participate in the ongoing Transfer/Career Center services which are published monthly in the Transfer/Career Center events calendar, or to visit the Transfer/Career Center and take advantage of the transfer resource library. Counseling faculty all have strong and recent training in Transfer Advising and preparation for competitive Universities and majors. Staff are available to assist students with applications, research, and access to information. The Transfer/Career Center is also open to both students and community members. Few life decisions are more important than determining how to shape one’s future. The Transfer/Career Center staff assists students in self-assessment of interest, skills, values, limitations and the exploration of the job market. Based on assessment and personal goals, students receive assistance in evaluating possible careers that lead to success and satisfaction. Career and academic counseling is available to help students develop educational and vocational plans leading to entry into career fields, vocational training and transfer to four year universities. The Transfer/Career Center offers professional career counseling and assessment, courses in career planning, workshops on career planning and job seeking skills, interest and personality assessment, a career library, and computer work stations. Career assessment and counseling are offered to the community for a modest fee.

The Transfer/Career Center is located in the 100 Building. For more information, call (831) 479-6385. At the Watsonville Center, Transfer/Career Center resources are available at the Student Resource Center in Room 4320, or call (831) 477-5134.

TUTORIAL CENTER

The Tutorial Program offers free group assistance to all Cabrillo College students with special services available to students enrolled in EOPS, Disabled Students Program and Services (DSPS) and certain career majors. All tutorial staff and many tutors are bilingual in Spanish and English. The Tutorial Center offers CG 205L, a corequisite of CG 205 (Academic Survival Skills), where students practice study skills learned in their class. Unit credit is available for this lab (1-3 units).

The Center is open Monday 8:00 a.m.–5:00 p.m., Tuesday–Thursday, 8:00 a.m.–6:00 p.m. and Friday 8:00 a.m.–4:00 p.m. Interested persons may receive more information at the Center, Room 1080, or by calling (831) 479-6470 or (831) 479-6126.

WATSONVILLE INTEGRATED LEARNING CENTER

Staff at the Integrated Learning Center in room 4410 on the second floor of the Watsonville Center provide tutoring in math, English and other subjects, labs in writing (ENGL 100L, ENGL 290), ESL and reading, and assistance with various learning resources. Students have access to computers, study space for individuals and groups, course reserve materials and a reference collection. Library cards, checkout and return are facilitated on site. Videos for telecourses, language lab materials, and other media are available for viewing and checkout. Hours during the semester are 8 am to 8 pm Monday–Thursday and 8 am–4 pm on Friday. Call (831) 477-5155 for more information.

WRITING CENTER AND ESL LAB

The Writing Center tutoring staff can help students strengthen their writing and editing skills. Students may sign up for open-entry, individualized labs in grammar, spelling, and writing, and they may drop in for free tutoring when referred by a teacher or counselor (ENGL 502L). The Center also offers ENGL 100L, the ENGL 100 co-requisite lab that focuses on grammar and mechanics. For current hours of service and more information about tutoring services, call (831) 479-6319.

The ESL Lab is part of the Writing Center and provides tutorial assistance to students for whom English is not their primary language. To earn credit on a drop-in basis, the ESL lab offers ESL 200L to 204L. ESL students may also sign up for tutoring support by taking ESL 502 for no credit and at no cost. Please call (831) 479-5790 for more details.

All Writing Center and ESL Lab courses are credit/no credit and open to all Cabrillo students.
ASSOCIATE DEGREE

The awarding of an Associate Degree represents more than an accumulation of units. It symbolizes a thoughtful attempt on the part of Cabrillo College to introduce students to patterns of learning experiences designed to develop specific capabilities and insights described by the four college core competencies. A student earning an Associate Degree from Cabrillo will be competent in:

- Communication
  (Reading, Writing, Listening, Speaking and/or Conversing)
- Critical Thinking and Information Competency
  (Analysis, Computation, Research, Problem Solving)
- Global Awareness
  (An Appreciation of Scientific Complexities, Social Diversity and Civics, and Artistic Variety)
- Personal Responsibility and Professional Development
  (Self-Management and Self-Awareness, Social and Physical Wellness, Workplace Skills)

An Associate in Arts Degree is primarily a liberal arts degree, though the major may be in a specific field, a general area, or in Liberal Arts with an emphasis in Arts and Humanities, Social Sciences or Interdisciplinary Studies. In 1998, Cabrillo established two new transferable Associate in Arts Degrees that combine the admissions requirements of either the University of California or the California State University with the Cabrillo graduation requirements. Please see the Combined Requirements for the A.A. and Intersegmental General Education Transfer Curriculum (IGETC) or the Combined Requirements for the A.A. and California State University General Education.

The completion of an Associate in Arts Degree is primarily a liberal arts degree, though the major may be in a specific field, a general area, or in Liberal Arts with an emphasis in Arts and Humanities, Social Sciences or Interdisciplinary Studies. In 1998, Cabrillo established two new transferable Associate in Arts Degrees that combine the admissions requirements of either the University of California or the California State University with the Cabrillo graduation requirements. Please see the Combined Requirements for the A.A. and Intersegmental General Education Transfer Curriculum (IGETC) or the Combined Requirements for the A.A. and California State University General Education.

The Associate in Science Degree is oriented to occupational programs (for those who seek employment with a two-year degree), and those who are in natural, physical, and applied science majors. For a detailed list of relevant transfer majors, see the chart of degrees and certificates at the end of this catalog section. In some majors, a student may choose to earn either an Associate in Arts or an Associate in Science Degree.

The completion of an Associate in Arts or an Associate in Science Degree does not ensure that a student can transfer directly to a four-year college or university. Students interested in transferring should consult a counselor and the catalog of the institution to which transfer is intended. Only one English course below transferable freshman composition may be used toward the Associate Degree. Units gained in 200 level courses will not count towards the Associate Degree. General Education courses from regionally accredited colleges or universities that have an equivalent at Cabrillo will be used in the area that best serves the student; either the general education area designations of the original institution or the pattern offered by Cabrillo.

REQUIREMENTS FOR THE ASSOCIATE IN ARTS (A.A.) DEGREE

Requirements are effective for students entering Cabrillo College fall 1991 and thereafter.

GENERAL EDUCATION REQUIREMENTS . . . 30 UNITS

Area A: English Language, Communication and
Critical Thinking . . . . . . . . . . . . . . . . . 6 units

A-1: English Language

Goal: To ensure that Cabrillo graduates read, write, and speak critically and competently. Because acquiring and refining literacy is an ongoing process reinforced through writing-intensive courses, students should complete Area A requirements early in their studies. Speaking and listening skills are reinforced through multiple opportunities for interpersonal communication and small group discussion in Area A courses.

Students will be able to:
- Understand and demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing, and presentation. In so doing, students will learn to:
  a) Develop a topic, using abundant detail and example and using non-narrative writing techniques, including comparison, summary, argument, analysis, and definition
  b) Unify essays through natural and logical transitions
  c) Show control of all major conventions of Standard English grammar, usage, and punctuation

Select 3 units from:
1) English 1A, 1AH, #1AMC, #1AMCH

A-2: Communication and Critical Thinking

Goal: To develop thinkers who are able to construct arguments utilizing factual, creative, and rational modes of thought and using words, symbols, and numbers as appropriate. To integrate new skills into their customary manner of thinking, students must be actively engaged in practicing thinking skills and applying them to open-ended as well as practical problems.
Students will be able to:

a) Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected
b) Identify premises, conclusions, claims, assumptions, and biases in one's own argument as well as in the arguments of others
c) Avoid errors in reasoning and unexamined assumptions and identify them in the arguments of others
d) Imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives that can give alternative meanings or solutions to given situations or problems
e) Recognize and articulate the value assumptions which underlie and affect decisions, interpretations, and evaluations made by ourselves and others.

Select 3 units from:

2) Business 5; Communication Studies 1, 2, 4, 10; Computer Science 1, 11; English 1B, #1BMC, 2, 2H, #2MC, #2MCH, Mathematics (any, excluding 200 level courses); Philosophy 12, 49

All of Area A must be completed with a "C" or better.

Area B: Scientific Inquiry . . . . . . . . . . . . . 6 units

Area B-1

Goal: To improve students' understanding of natural science principles and of the ways in which scientists investigate natural science phenomena.

Students will be able to:

a) Effectively communicate ideas from the physical sciences
b) Understand and apply the scientific method in the physical sciences
c) Demonstrate understanding of scientific theories from the physical sciences
d) Apply physical models to explain the behavior of commonly occurring phenomena
e) Articulate how measurement errors impact the application of scientific models.

Select 3 units from the following:

1) Physical Universe: Astronomy 3, 4, 8A*; Chemistry 1A*, 2*, 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*; 32*; Environmental Science 10, 10L; Geography 1, 1L*; 7; Geology 10*, 15, 20*, 25; Meteorology 1, 1L*; Oceanography 10*, Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12

Area B-2

Goal: To improve students' understanding of complex and varied life forms and life processes.

Students will be able to:

a) Effectively communicate concepts from the biological sciences
b) Understand and apply the scientific method in the biological sciences
c) Demonstrate understanding of scientific principles from the biological sciences
d) Apply biological principles to interpret the observations of the natural world.

Select 3 units from the following:

2) Life Forms: Anthropology 1, 1H, 1L*; Biology 1A* 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 15ABCD*(min 3 units), 21A*; Horticulture 1A*, 1B*; Psychology 4 Laboratory courses are marked with an asterisk (*); one lab science is required.

Area C: Arts and Humanities . . . . . . . . . . . . . 6 units

Goal: To enrich and expand students' knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and thought. Through study in the disciplines of literature, philosophy, and the fine and performing arts, students will engage in critical analysis, develop aesthetic judgments, and learn to appreciate the arts and humanities. Students will learn respect for cultural diversity and value the multiple voices which contribute to the health and vitality of society.

Students will be able to:

a) Demonstrate awareness of the scope and variety of works in the arts and humanities
b) Critically appreciate those works as expressions of individual and universal values within historical, social, and cultural contexts
c) Analyze the aesthetic qualities of works in the arts and humanities
d) Engage in the creative process of linguistic expression, philosophical reasoning, fine and performing arts, and analytical and creative writing
e) Develop and express informed personal responses to works in the arts and humanities.

Select courses from at least two different departments:

Area D: Social Sciences . . . . . . . . . . . . . . . 9 units

Goal: To increase students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

Students will be able to:

a) Employ the methods and data that historians and social/behavioral scientists commonly use to investigate the human condition
b) Identify important information resources in history and the social/behavioral sciences
c) Examine institutions and processes across a range of historical periods and social settings
d) Use and critique models and methods for explaining behavior
e) Articulate and analyze alternative approaches to the solution of contemporary social issues.

1) Select one U.S. History course from the following: History 14, 15, 17A, 17AH, 17B, 17BH, #18A, #18B, #21A, #21AH, #21B, #21BH, #29A, #29B

2) Select one U.S. Political Science course from the following: PS 1, 1H, or
3) Select a third course to complete the 9-unit requirement: Anthropology #2, 3, 6, 7, 8, 9, 17; Bilingual/Bicultural Studies #32; Communication Studies 7, #12; Early Childhood Education 31, 32; Economics 1A, 1B; Environmental Science 20; Geography #2, 4, 5; Health Science 15; History #2A, 2B, 4A, 4AH, 4B, #6, 14, 15, #16A, #16B, #16C, 17A, 17AH, 17B, 17BH, #18A, #18B, #19A, #19B, #19C, #21A, #21AH, #21B, #21BH, 24, #29A, #29B; Journalism 21; Political Science 1, 1H, 2, 3, 4, 5; Psychology 1, 2, 6, 8, 12, 26, 31, 33; Sociology 1, 1H, #2, #3, 5, #8, #9, #17; Women’s Studies 1, 2, #5, 7, 11, 13

Area E: Lifelong Learning and Self-Development . . . . . . . . . . 3 units

Goal: To increase students’ knowledge and understanding of self, others, and interpersonal relationships from a physiological, psychological, and/or social context throughout the life cycle.

Students will be able to:

a) Develop the abilities to synthesize course material, including theoretical frameworks and their applications
b) Assess themselves and others in relationship to course content
c) Develop the ability to apply self-selected course concepts for increased efficacy in their lives.

Select from:

Communication Studies 7, #12; Culinary Arts and Hospitality Management 20; Counseling & Guidance 1, 54, 58, 59; Early Childhood Education 31, 33; Health Science 10, 12, 14, 15, 20, 21, 22; Psychology 33, 35ABC, 37ABC, 39ABC; Sociology 5

MULTICULTURAL STUDIES REQUIREMENT . . . . . . . . . . 3 units

Goal: To promote critical thinking and enrich students' understanding of cultural diversity by studying under-represented ethnic and racial groups in the country of their origin or in the United States.

Students will be able to:

a) Analyze their own attitudes, behaviors, and beliefs regarding diversity and bias
b) Demonstrate an appreciation for diversity and multiculturalism, one that allows for the development of skills leading to effective communication and satisfactory social relations
c) Recognize the historical experiences of ethnic and racial groups in the United States who have been targets of individual and institutional racism and classism
d) Recognize the contributions to American society and culture made by ethnic groups who have suffered discrimination and exclusion
e) Explore the development of group and individual identity within unequal power relations while addressing the unique historical and contemporary responses from within each group.

Select from:

Anthropology 2, 6, 7, 8, 9, 17; Art History 16, 17, 18, 19, 52; Bilingual/Bicultural Studies 32; Communication Studies 12; Dance 12; English 1AMC, 1AMCH, 1BMC, 2MC, 2MCH, 24A, 24B, 39, 41A, 41B, 45; Geography 2, 4; History 2A, 2B, 6, 16A, 16B, 16C, 18A, 18B, 19A, 19B, 19C, 21A, 21AH, 21B, 21BH, 29A, 29B; Music 11A, 11LA, 12, 13A; Philosophy 14, 15; Sociology 2, 2H, 3, 8, 9; Spanish 30B; Theatre Arts 8; Women’s Studies 2, 5.

Multicultural courses are marked with a number sign (#) in the GE areas and may be double counted.

Note: Courses taken to meet the Multicultural Studies Requirement also count under appropriate areas for general education.

MAJOR REQUIREMENTS . . . . . . . . . . . . . . . . . . . . 18-20 UNITS

The major may be in a specific field, a general area, or in liberal arts. A counselor or advisor will help you develop a major program of study.
Select 3 units from the following:

**Physical Universe:** Astronomy 3, 4, 8A; Chemistry 1A*, 2*, 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*, 32; Environmental Science 10, 10L; Geography 1, 1L*, 7; Geology 10*, 15, 20*, 25; Meteorology 1, 1L*; Oceanography 10*; Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12

**Life Forms:** Anthropology 1, 1H, 1L; Biology 1A*, 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 15ABCD*(min 3 units), 21A*; Horticulture 1A*, 1B*; Psychology 4

**Laboratory Sciences:** See courses marked with an asterisk (*). A lab science is strongly recommended.

**Area C: Arts and Humanities**

Select 3 units from the following:
Art 2A, 4, 5, 7A, 8A, 24, Art Photography 9A; Art History 10, 11, 11L, 12, 13, 14, #16, #17, #18, #19, 20A, 20B, #52, 53, 77; Chinese 1, 2; Dance 10, 12#; English 1B, #1BMC, 12A, 12B, 12C, 12D, 12E, 12F, 17, 17A, 20A, 20B, #24A, #24B, 30A, 30B, 31, 32, 33, 34, #39, 40, #41A, #41B, #45, 46A, 46B, #47, 48A, 49A, 49B; French 1, 2, 3, 4, 10; German 1, 2, 3, 4, 10; History #2A, #2B, 4A, 4AH, 4B, 4BH, Italian 1, 2, 3, 10; Japanese 1, 2; Music 1, 5, 6, 10, 10M (82) #11A, #11LA, #12, #13A, 17A, 19, 33A, 34, 35, 36, 38, 40, 46, 49, 51A, 54, 55, 58, 77; Philosophy 4, 6, 7, 8, 9, 10, 10H, #14, #15, 16; Sign Language Studies 1, 2, 3; Spanish 1, 2, 3, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, #30B; Theatre Arts 7, #8, 9, 10A, 28, 29, 77

**Area D: Social Sciences**

1) Select a U.S. History or U.S. Political Science course from the following:

- History 14, 15, 17A, 17AH, 17B, 17BH, #18A, #18B, #21A, #21B, #21B, 17AH, #29A, #29B; Political Science 1, 1H, 5

2) Select a second course to complete the 6 unit requirement:

- Anthropology #2, 3, #6, #7, #8, #9, #17; Bilingual/Bicultural Studies #32; Communication Studies 7, #12; Early Childhood Education 31, 32; Economics 1A, 1B; Environmental Science 20; Geography #2, #4, 5; Health Science 15; History #2A, #2B, 4A, 4AH, 4B, 4BH, 6, 14, 15, #16A, #16B, 16C, 17A, 17AH, 17B, 17BH, #18A, #18B, #19A, #19B, #19C, #21A, #21AH, #21B, #21B, 24, #29A, #29B; Journalism 21; Political Science 1, 1H, 2, 3, 4, 5; Psychology 1, 2, 6, 8, 12, 26, 31, 33; Sociology 1, 1H, #2, #2H, #3, 5, #9, 9, 47; Women's Studies 1, #2, #5, 7, 11, 13

**Area E: Lifelong Learning and Self-Development**

- Communication Studies 7, #12; Culinary Arts and Hospitality Management 20; Counseling and Guidance 1, 54, 58, 59; Early Childhood Education 31, 33; Health Science 10, 12, 14, 15, 20, 21, 22; Psychology 33, 35ABC, 37ABC, 39ABC; Sociology 5

A student graduating from the Associate Degree nursing program is considered to have satisfied the essential content of Area E for the associate degree and shall be considered to have satisfied the unit requirement in Area E for the associate degree.

**MULTICULTURAL STUDIES REQUIREMENT**

Select from:

- Anthropology 2, 6, 7, 8, 9, 17; Art History 16, 17, 18, 19, 52; Bilingual/Bicultural Studies 32; Communication Studies 12; Dance 12; English 1AMC, 1AMCH, 1BMC, 2MC, 2MCH, 24A, 24B, 39, 41A, 41B, 45; Geography 2, 4; History 2A, 2B, 6, 16A, 16B, 16C, 18A, 18B, 19A, 19B, 19C, 21A, 21AH, 21B, 21BH, 29A, 29B; Music 11A, 11LA, 12, 13A; Philosophy 14, 15; Sociology 2, 2H, 3, 8, 9; Spanish 30B; Theatre Arts 8; Women's Studies 2, 5

Multicultural courses are marked with a number sign (#) in the GE areas and may be double counted.

Note: Courses taken to meet the Multicultural Studies Requirement also count under appropriate areas for general education.

**MAJOR REQUIREMENTS**

- Major (30-unit minimum) Note: The A.S. Degree major is normally in a two-year vocational-career program, such as those in business and the technical fields.
- The A.S. Degree major is a specialized major and should be planned with the aid of a counselor or faculty advisor.

**MATHEMATICS COMPETENCY REQUIREMENT**

The mathematics requirement may be met by successful completion of intermediate algebra or equivalent or a higher-level mathematics course with a grade of "C" or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.

**ELECTIVES**

Elective units, in addition to general education and major units, may be needed to complete the required total of sixty (60) semester units.

- The cumulative grade point average for the Associate in Science Degree must be 2.0 ("C") or better in a published curriculum which includes the general education requirements.
- Twelve (12) semester units may be pass ("P") grades instead of letter grades. (These 12 units can be in addition to those courses regularly using pass/no pass grading.)
- At least twelve (12) of the required sixty (60) semester units must be completed in residence at Cabrillo College.

**Note:** A course may be used to meet a requirement in only one area, except for multicultural studies.

**MODEL PROGRAMS FOR OCCUPATIONAL (A.S.) ASSOCIATE DEGREES**

Cabrillo College occupational majors are listed alphabetically in this catalog and are followed by program requirements. Exceptions or substitutions to program requirements must be approved by the Program Chair.

**REQUIREMENTS FOR MULTIPLE OCCUPATIONAL ASSOCIATE DEGREES**

Requirements for Multiple Associate Degrees within Occupational Programs

To be eligible for multiple associate degrees within occupational programs, a student must satisfactorily complete all the requirements of the majors with at least a 2.0 grade point average. In general, multiple associate degrees cannot be awarded within one occupational program unless otherwise stated in the specific program description of this catalog.

If the student has not been enrolled at Cabrillo College for two or more consecutive semesters, s/he will need to meet any new general education and major requirements in effect during the academic year in which s/he returns.

**REQUIREMENTS FOR MULTIPLE ASSOCIATE DEGREES IN TRANSFER PROGRAMS**

To be eligible for multiple associate degrees in transfer programs (or a combination of occupational and program degree programs), a student must satisfactorily complete all the requirements of the majors with at least a 2.0 grade point average. In addition, students must complete at least ten units in coursework specific to their major requirements (as per the suggested programs in the Cabrillo College Catalog) that are not replicated in the major requirements for any other degree they seek or possess.

If the student has not been enrolled at Cabrillo College for two or more consecutive semesters, s/he will need to meet any new general education and major requirements in effect during the academic year in which s/he returns.
MODEL PROGRAMS FOR (A.A./A.S.) ASSOCIATE DEGREES

Cabrillo College majors are listed alphabetically in this catalog and are followed by a * Model Program.* The courses listed under the model programs are courses that fulfill the requirements for an A.A./A.S. Degree in that discipline at Cabrillo, and may fulfill some of the lower-division major requirements for a number of four-year universities in our area. However, transfer students should follow the major preparation listed for their chosen transfer school. This information can be found at "http://www.assist.org" or consult a Cabrillo Counselor.

Transfer students must also meet the admissions requirements of the 4-year transfer university. Please see the handout in the Transfer Center entitled “Essential Transfer Information” or follow the Combined Requirements for the IGETC AA/AS or the Combined Requirements for the CSU GE AA/AS. These requirements are listed in the following pages of this Catalog.

Transfer Requirements for UC & CSU

Students who plan to transfer should note that each college and university has its own admission, general education, and lower-division major requirements that must be completed prior to transfer, and these requirements vary greatly from institution to institution.

General Education Requirements

General Education Requirements are a major portion of all degree programs. Students have several options for completing General Education Requirements depending on the degree they plan to attain, and the campus or institution to which they plan to transfer. Following are the general education patterns most commonly followed by Cabrillo transfer students:

1. California State University’s (CSUs) General Education Requirements for a BA/BS Degree (yellow handout available in the Counseling Division and Transfer Center). This general education pattern fulfills the lower division general education required by the CSU System. By following the Combined Requirements for the Associate Degrees and CSU General Education (yellow handout) students complete the admissions requirements, the lower division general education, and the lower division major preparation (if planned correctly) needed for admission to the California State University.

2. Intersegmental General Education Transfer Curriculum (IGETC) for a BA/BS Degree at any of the University of California (UC) or California State University (CSU) campuses (lavender handout available in the Counseling Division and Transfer Center). This general education pattern fulfills the lower division general education requirements for either the California State University or the University of California systems. By following the Combined Requirements for the Associate Degrees and the IGETC (lavender handout) students complete the admissions requirements, the lower division general education, and the lower division major preparation (if planned correctly) needed for admission to either the California State University or the University of California systems. The UC system puts restrictions on the use of IGETC for some majors, check ASSIST (www.assist.org) or a Cabrillo college counselor for advice.

3. For each campus of the University of California, a student may complete the General Education pattern specific to that campus. The UC Santa Cruz General Education Requirements for a B.A./B.S. Degree (white or buff-colored handout) is available in the Counseling Division and Transfer Center. Other campus specific General Education patterns can be found on ASSIST at www.assist.org. Campus specific general education patterns do not incorporate the admission requirements for the University. Students following these patterns must make sure that they have also fulfilled the UC requirements for admission (see “Essential Transfer Information,” green handout) available in the Counseling Division, the Transfer Center, and on the Cabrillo College Transfer and Articulation website.

Students should consult with a Cabrillo counselor to determine which general education pattern is appropriate given their academic goals.

TRANSFER TO THE UNIVERSITY OF CALIFORNIA

(Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, Santa Barbara, Santa Cruz)

Admission Requirements for Transfer Students

For admission to the University of California (UC) as a transfer student, students must complete at least 60 UC transferable semester units with a 2.4 minimum grade point average; to be competitive at all nine undergraduate campuses, students should have a 3.0 grade point average or higher. (UC Berkeley and UCLA both require a GPA higher than a 3.0 to be selective.) Information on course transferability is included in each course description. Unless students were eligible for admission to the University of California directly from high school, specific course requirements must also be met: one transferable college course in mathematics, two transferable courses in English composition, and four transferable college courses chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, the physical and biological sciences. These specific requirements must be passed with grades of “C” or higher. The course in mathematics must have a prerequisite of intermediate algebra (MATH 15 does not meet this requirement). The university will accept a maximum of 70 UC transferable semester units from California Community Colleges.

General Education Requirements

Students have two options in completing the general education requirement for the University of California.

Option 1) The Combined Requirements for the Associate Degrees and IGETC. This option allows students to complete both the IGETC requirements and the requirements for an Associate Degree. The IGETC is accepted at all campuses of both the University of California and the California State University provided the entire curriculum (34 units) is completed prior to transfer.

Option 2) Each campus of the University of California has its own campus-specific general education requirements. Prospective transfer students should visit the Transfer Center in Building 100 to look up the campus specific general education requirements on the Internet (www.assist.org) or to examine the catalog of the campus to which they plan to transfer for specific general education requirements. Students should meet with a Cabrillo counselor to assist them in choosing their general education option.

Lower-Division Major preparation

To determine the lower-division courses required for a specific campus and major, students should refer to the ASSIST articulation database on the Internet (www.assist.org) which is bookmarked on the Internet stations in the Cabrillo Transfer Center, Building 100. If a UC campus has not posted this information in ASSIST, students should refer to the UC catalog to determine the lower-division courses required for their major. Determining lower-division major preparation for a given campus and major can be complex, and requirements change frequently. It is strongly advised that students meet with a Cabrillo counselor to assist them with this process.
Transfer Admission Agreements (Guaranteed Admission)

While eligible students can be admitted to any campus of UC, Cabrillo has special transfer admission agreements (TAs) with Davis, Irvine, Merced, Riverside, Santa Barbara, San Diego, and Santa Cruz. Students who are qualified may write a TA which guarantees admission to these campuses. Contact the Counseling office at (831) 479-6274 to schedule an appointment either to develop a transfer plan or to write a transfer admission agreement.

COMBINED REQUIREMENTS FOR THE ASSOCIATE DEGREES AND IGETC TRANSFERABLE TO UC AND CSU

By completing the following requirements, students will complete both an Associate Degree at Cabrillo and the IGETC general education pattern which enables students to transfer to either the California State University (CSU) or the University of California (UC) with all admission and lower-division general education requirements met. Since requirements still vary slightly between the two university systems, students should read this information carefully. Caution: this degree does not guarantee admission to any specific campus in either the UC or CSU systems nor does it guarantee admission to a specific major.

UC-Combined Requirements for the IGETC Associate Degrees

(2.4 GPA required):
1. 60 UC transferable units;
2. *General Education-Complete IGETC Areas 1-5 plus the foreign language requirement;
3. Multicultural course (Complete only if you want an Associate Degree before transfer);
4. Major-see Model Program section above.

*GE courses must be "C" or better.

CSU-Combined Requirements for the IGETC Associate Degrees

(2.0 GPA required):
1. 60 CSU transferable units;
2. *General Education-Complete IGETC Areas 1-5 including 5 courses in Area 4 for full certification for CSU;
3. Multicultural course (Complete only if you want an Associate Degree before transfer);
4. Major-see Model Program section above.

*GE courses must be "C" or better.

AREA 1: ENGLISH COMMUNICATION

6 units for UC, 9 units for CSU

Group a: English 1A, 1AH, #1AMC, #1AMCH
Group b: English 2, 2H, #2MC, #2MCH, Philosophy 49 (beg F03)
Group c: Communication Studies 1, 2, or 10 CSU only

AREA 2: MATHEMATICAL CONCEPTS & QUANTITATIVE REASONING

Select one Mathematics course. 3 units

Mathematics: Math 2, 3, 4, 5A, 5B, 5C, 6, 7, 10, 12H, 13, 18 (beg S02), 23

AREA 3: ARTS AND HUMANITIES

Select one course from the Arts and one from the Humanities; the third course may be either arts or humanities.

Arts: Art History 10, 11, 12, 13, 14, #16, #17, #18, #19, 20A, 20B, #52, 53, 77; Dance 10, #12; Music 1, 5, 6, 10, 10M (S2) #11A, #11LA, #12, #13A, 77; Theatre Arts #8, 9, 77

Humanities: English 1B, #1BMC, 20A, 20B, #24A, #24B, 30A, 30B, 31, 32, 33, 34, #39, 40, #41A, #41B, #45, 46A, 46B, 47, 48A, 49A; French 3, 4; German 3, 4; History #2A, #2B, 4A, 4AH, 4B; Italian 3; Philosophy 4, 6, 7, 8, 9, 10, 10H, #14, #15, 16; Spanish 3, 4, 6A, 6B, 25, 26, #30B

AREA 4: SOCIAL AND BEHAVIORAL SCIENCES

9 units

Select one course from at least two different disciplines or an interdisciplinary sequence. For CSU full certification five courses are required.

Anthropology #2, 3, #6, #7, 9, #17; Bilingual/Bicultural Studies #32; Early Childhood Education 31, 32; Economics 1A, 1B; Environmental Science 20; Geography #2, #4, 5; Health Science 15; History #2A, #2B, 4A, 4AH, 4B, 4BH, #6, 14*, 15*, #16A, #16B, #16C, 17A*, 17AH*, 17B* 17BH*, #18A*, #18B*, #19A, #19B, #19C, #21A*, #21AH*, #21B*, #21BH*, 24, #29A*, #29B*, Journalism 21; Political Science 1, 1H, 2, 3, 4, 5; Psychology 1, 6, 8, 12, 26, 31, 33; Sociology 1, 1H, #2, #2H, #3, 5, #8, #9, 47; Women’s Studies 1, #2, 7, 11

The CSU system has a graduation requirement in U. S. History & U. S. Political Science. It’s recommended that students complete these courses in addition to the above Area 4 courses prior to transfer. Choose a History course and a Political Science course marked * to meet this requirement before transfer. For full certification for CSU, a total of five courses are needed in Area 4.

AREA 5: PHYSICAL AND BIOLOGICAL SCIENCES

8 units

Select one Physical Science and one Biological Science; one of these courses must have a laboratory, and the units for both sciences must total 7. Laboratory sciences are marked +.

Physical Science (3 - 5 units): Astronomy 3, 4, 8A+; Chemistry 1A+, 1B+, 2+, 5+, 10+, 12A, 12AL+, 12B, 12BL+; Environmental Science 10, 10L; Geography 1, 1L+, 7; Geology 10+, 15, 20+, 25; Meteorology 1, 1L+; Oceanography 10+; Physics 2A+, 2B+, 4A+, 4B+, 4C+, 4D, 10, 10L+, 11+, 12

Biological Science (3 - 5 units): Anthropology 1, 1H, 1L; Biology 1A+, 1B+, 1C+, 4+, 5+, 6+, 11A+, 11B+, 11C+, 13A, 13AL+, 13B, 21A+ (as of S05); Psychology 4

FOREIGN LANGUAGE REQUIREMENT

(4 units if not met in high school - UC only)

Proficiency equivalent to two years of high school study of the same foreign language or one semester of college study of a foreign language is required. Foreign Language courses taken in high school may not be counted under AREA C - Humanities.

The following languages are offered at Cabrillo College:
Chinese, French, German, Italian, Japanese, Sign Language Studies, Spanish

MULTICULTURAL STUDIES REQUIREMENT

3 units

One course must be taken in Multicultural Studies. Select a course from any area that is marked the number sign (#) or select from the following: BBS 32, COMM 12, WS 2, (6), WS 5. If the course is listed within one of the general education areas on this form, one course may double count for both the multicultural studies requirement and for one of the above requirements.

MAJOR REQUIREMENTS

This A.A. Degree requires a total of 60 transferable units (UC transferable units for UC students or CSU transferable units for CSU students). Students transferring to CSU or UC may need to take additional lower-division courses to meet university requirements in their chosen major for their BA/BS Degree. Consult the catalog of the institution to which you plan to transfer and/or work with a counselor to select appropriate courses. Catalogs are available in the Transfer Center.

Please note: Only 4 units of PE activity courses may be counted toward the 60 unit requirement for students transferring to a UC.
REQUIRED GRADE POINT AVERAGE

The cumulative grade point average for this degree must be a minimum of 2.0 for CSU and 2.4 for UC. At least 12 units must be completed in residence at Cabrillo College. All general education courses must be completed with grades of C or better. Only 12 units may be taken for Pass ("P" grades) and these units may not be in AREA A or in mathematics. Students are also cautioned not to take courses in their major for "P" grades. Students transferring to CSU or UC who complete this degree should request certification for IGETC. Forms to request certification are available in the Admissions Office, Building 100.

* Indicates course meets U.S. History/Constitutions Requirement.
+ Indicates laboratory science.
# Indicates that course meets Multicultural Studies requirement.

UC SANTA CRUZ-CABRILLO COLLEGE TRANSFER PROGRAM

A UCSC transfer advisor has regularly scheduled office hours at Cabrillo. Appointments can be scheduled in the Transfer Center, Building 100. For more information, contact the Cabrillo College Transfer Center at (831) 479-6385.

TRANSFER TO INDEPENDENT OR OUT-OF-STATE COLLEGES AND UNIVERSITIES

At Cabrillo College, we prepare students not only for the UC and CSU systems, but for any four-year college or university in the country. In the past few years, Cabrillo has transferred students to Stanford, Santa Clara, New York University, Sarah Lawrence, Yale, Duke, and many other independent and out-of-state colleges and universities. For more information, contact the Cabrillo College Transfer Center for research or an appointment (831) 479-6385.

TRANSFER TO THE CALIFORNIA STATE UNIVERSITY SYSTEM

(Bakersfield, Chico, Channel Islands, Dominguez Hills, Fresno, Fullerton, Hayward/East Bay, Humboldt, Long Beach, Los Angeles, Maritime Academy, Monterey Bay, Northridge, Cal Poly Pomona, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, Cal Poly San Luis Obispo, Cal Poly Pomona, San Marcos, Sonoma, Stanislaus)

Admission Requirements for Transfer Students

For admission to the California State University as a transfer student, students must complete at least 60 CSU transferable semester units with a 2.0 minimum grade point average; some campuses, Cal Poly San Luis Obispo and San Diego State in particular, are more selective and will require a higher grade point average. Information on course transferability is included in each course description in the Cabrillo College Catalog. Unless students were eligible for admission to the California State University directly from high school, specific course requirements must also be met for admission: one transferable college course in mathematics, one in English composition, one in critical thinking, and one in oral communication. These specific requirements must be passed with grades of "C" or higher. The course in mathematics must have a prerequisite of intermediate algebra. The university will accept a maximum of 70 UC transferable semester units from California Community Colleges.

General Education Requirements

Students have two options in completing the general education requirements for the California State University.

Option 1) the CSU General Education Requirements. These requirements consist of 39 semester units, which can be completed at Cabrillo College. Students are required to complete a minimum of 30 of the 39 units prior to transfer, however, it is in a student's best interest to complete all 39 prior to transfer. Please refer to The Combined Requirements for the Associate Degrees/CSU GE requirements. This Associate Degree allows students to complete the admissions, general education and major preparation requirements (with good planning) for the CSU campus of their choice and receive an Associate Degree.

Option 2) the Intersegmental General Education Transfer Curriculum (IGETC), is accepted at all campuses of both the California State University and the University of California provided the entire curriculum (34 units) is completed prior to transfer (please refer to the information about the Transferable Associate Degree/IGETC above). Students should meet with a Cabrillo counselor to assist them in choosing their general education option.

Lower-Division Major Preparation

To determine the lower-division courses required for a specific campus and major, students should refer to the ASSIST articulation database on the Internet (www.assist.org). These sites are bookmarked on the Internet stations in the Cabrillo Transfer Center, the 100 Building. If a CSU campus has not posted this information in ASSIST or on the Internet, students should refer to the CSU catalog to determine the lower-division courses required for their major. Determining lower-division major preparation for a given campus and major can be complex, and requirements change frequently. It is strongly advised that students meet with a Cabrillo counselor to assist them with this process.

Transfer Admission Agreements (Guaranteed Admission)

While eligible students can be admitted to any campus of CSU, Cabrillo has special transfer admission agreements (TAAs) with many CSU campuses. Please check with the Transfer Center for a current list of campuses that offer agreements. Students who are qualified may write a TAA which guarantees admission to these campuses. Contact the Counseling office at (831) 479-6274 to schedule an appointment either to develop a transfer plan or to write a transfer admission agreement.

COMBINED REQUIREMENTS FOR THE A.A. DEGREE AND CSU GENERAL EDUCATION TRANSFERABLE TO CSU

By completing the following requirements, students will complete both an Associate Degree at Cabrillo and the CSU general education pattern which enables students to transfer to the California State University (CSU) with all admission and lower-division general education requirements met. Caution: This degree does not guarantee admission to any specific campus of the CSU system nor does it guarantee admission to a specific major. This degree requires a minimum of 60 transferable units to CSU and must include a multicultural studies class.

*The degree at Cabrillo requires a student to complete 30 of the 39 units of lower division general education including all of Area A and B4. If a student completes the recommended 39 units of general education, then all lower division general education required by CSU will be complete.

CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION PATTERN

CSU-Combined Requirements for the CSU GE Associate Degrees (2.0 GPA required):

1. 60 CSU transferable units;
2. *General Education-Complete at least 30 units of the following general education courses including all of Area A & B4-It is advisable to complete all 39 lower division GE units including a US History and a US Political Science. Students who complete less than the 39 units in lower division will be required to complete those units at the university. All students will have at least 9 units of upper division GE to complete at the university;
3. Multicultural course (Complete only if you want an Associate Degree before transfer);
4. Major-see Model Program section above.

*All Area A -B4 -US History & US Political Science courses must be "C" or better.

California State University General Education Requirements

Area A: English Language
Communication and Critical Thinking: 9 units
Choose one course from each of the three sub-areas.
A1-Oral Communications: Communication Studies 1, 2, 10
Area B: Scientific Inquiry and Quantitative Reasoning: minimum of 9 units

Choose at least one course from the Physical Universe group and one course from the Life Forms group. At least one of these sciences must include a laboratory. Laboratory sciences are marked with an asterisk (*). Select one course from Mathematical Concepts and Quantitative Reasoning. (Note: all of these courses have a prerequisite of intermediate algebra).

B1-Physical Universe: Astronomy 3, 4, 8A; Chemistry 1A*, 2*, 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*, 32*; Environmental Science 10, 10L; Geography 1, 1L* 7; Geology 10*, 15, 20*, 25; Meteorology 1, 1L*; Oceanography 10*, Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12

B2-Life Forms: Anthropology 1, 1H, 1L*; Biology 1A*, 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 15ABCD*(min 3 units) 21A* (as of F04); Psychology 4

B3-Laboratory Sciences: See courses marked with an asterisk (*) under B1 and B2. For general education credit, 1 unit laboratory courses must be taken with corresponding lecture courses (Geography 1+1L, Astronomy 10 or 11 +8A, Meteorology 1+1L).

B4-Quantitative Reasoning: Mathematics 2, 3, 4, 5A, 5B, 5C, 6, 7, 10, 12, 12H, 15, 13, 18

Area C: Arts and Humanities: minimum of 9 units

Students must select at least 3 units from C1 (Arts) and 3 units from C2 (Humanities). No more than two courses may be selected from a single department. However, students may select a maximum of six units of music performance courses. Performance courses are marked with an asterisk (*).

C1-Arts: Art History 10, 11, 12, 13, 14, #16, #17, #18, #19, 20A, 20B, #52, 53, 77; Dance 10, #12; Music 1, 5, 6, 10, 10M (82) #11A, #11LA, #12, #13A, 77; Theatre Arts 7, #8, 9, 10A, 77

Note: Students who completed the following courses fall 1995 or earlier will receive general education credit. ART 2A, 4, 5, 7A, 8A, 24, Art Photography 9A; Music 17A, 19, 33A, 34, 35, 36, 38, 40, 46, 49, 51A, 54, 55, 58; Theatre Arts 28, 29. A maximum of six semester units in performance courses is allowed.

C2-Humanities: Chinese 1, 2; English 1B, #1BMC, 12A, 12B, 12C, 12D, 12E, 12F, 17, 20A, 20B, #24A, #24B, 30A, 30B, 31, 32, 33, 34, #39, 40, #41A, #41B, #45, 46A, 46B, 47, 48A, 49A; French 1, 2, 3, 4, 10; German 1, 2, 3, 4, 10; History #2A, #2B, 4A, 4AH 4B; Italian 1, 2, 3, 10; Japanese 1, 2; Philosophy 4, 6, 7, 8, 9, 10, 10H*, #14, #15, 16; Sign Language Studies 1, 2; Spanish 1, 2, 3, 4, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, #30B

Note: English 1B may be counted under C2 if not used to meet the A3 requirement. Students planning to attend SFSU or SJSU who did not take English 2 for Area A3 are advised to take English 1B for Area C2. English 1BMC may be counted only under C2.

Area D: Social Sciences: minimum of 9 units

No more than two courses may be counted from any single department. It is recommended that courses in three departments be taken to insure breadth.

Area E: Lifelong Learning and Self-Development: 3 units

# Indicates that course meets Multicultural Studies requirement.

#2 indicates that course meets Multicultural Studies requirement and for one of the above requirements. The total number of General Education semester units that can be certified by Cabrillo College is 39. Students must request certification of General Education from Admissions and Records prior to transfer. In order to have 39 units certified, students must complete 9 units from Area A, a minimum of 9 units each from Areas B, C, and D, and 3 units of Area E. (Students must have GE certified in order to use "P"- Pass grades to satisfy GE requirements.)

MULTICULTURAL STUDIES REQUIREMENTS
ASSOCIATE REQUIREMENT ONLY

One course must be taken in Multicultural Studies. Select a course from any area that is marked with the number sign #. If the course is listed within one of the general education areas on this form, one course may double count for both the multicultural studies requirement and for one of the above requirements.

MAJOR REQUIREMENTS

This Associate Degree requires a total of 60 CSU transferable units. Students transferring to CSU may need to take additional lower-division courses to meet university requirements in their chosen major for their B.A./B.S. Degree. Consult the catalog of the institution to which you plan to transfer and/or work with a counselor to select appropriate courses. Catalogs are available in the Transfer Center and on the Cabrillo College Transfer and Articulation website.
CAREER TECHNICAL EDUCATION PROGRAMS (Occupational, Vocational Programs)

Cabrillo College offers programs that lead to Skills Certificates, Certificates of Achievement, and A.S. Degrees. These programs prepare students for immediate employment or job advancement. For a listing of Career Technical Education programs see page 51 of this Catalog. For further information see the catalog pages describing the program and contact the individual department offering the program or the Career Planning Center. Students seeking a Career Technical Education certificate or degree should see a counselor to develop an educational plan.

Skills Certificate
Skills Certificates are awarded to students who acquire a set of career relevant skills through the completion of one or more courses as specified in the college Catalog.

Certificate of Achievement
Certificates of Achievement provide an opportunity to pursue a concentrated course of study in a particular career area. The courses required for individual programs are listed by program name on the following pages. A 2.0 grade point average is required in the area of concentration to receive a Certificate of Achievement. All certificates require completion of an English course selected from the General Education Area A1: Communication and Critical Thinking.

Associate in Science Degree
The Associate in Science programs usually consist of the core Certificate of Achievement courses, 21 units of General Education requirements, plus suggested electives to total a minimum of 60 units. A 2.0 grade point average for all coursework is required to receive a degree.

COURSE CLASSIFICATION AND NUMBERING

1-99
Courses numbered 1 through 99 are baccalaureate level courses, carrying lower division transfer credit for the California State University (CSU) system. Courses in the 1 through 99 series meet the following criteria:
1. The course is parallel to one offered at a California State University;
2. The course has procedural rigor and treats subject matter at university level.

Note: The University of California follows the UC Transfer Course Agreement with Cabrillo College, located in the ASSIST database (www.assist.org), when determining the transferability of Cabrillo College courses to the UC system. UC approved courses are selected from courses in the 1 through 99 series. Cabrillo College indicates the transfer status of each course in both the Catalog and Schedule of Classes.

100-199
Courses numbered 100 through 199 are intended as associate degree level courses, some of which may transfer to four-year schools in certain occupational curricula. Consult a counselor or the four-year university to determine which courses transfer to four-year schools.

200-299
Courses numbered 200 through 299 are nontransferable, and are not intended as associate degree level courses. These courses will not count in calculating the GPA for the associate degree.

500-599
Courses numbered 500 through 600 are non-credit courses, are nontransferable, and are not recorded on a transcript.

POLICY STATEMENT–HEALTH OCCUPATIONS

Cabrillo College is committed to achieving equal educational opportunity and full participation for persons with disabilities. It is Cabrillo’s policy that no qualified person be excluded from participating in or applying for any college program or activity. Reasonable accommodations will be provided for students with learning, psychological, or physical disabilities. College program selection committees will not make medical determinations regarding whether or not the applicant is disabled. Clear instructions for documentation of disabilities will be distributed to applicants or referrals of the applicant will be made to the Disabled Student Program and Services Office. This policy derives from the College’s commitment to nondiscrimination for all persons in employment, access to facilities, and students’ programs, activities, and services.
## DEGREES AND CERTIFICATES

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### Early Childhood Education:
- Proficiency in Teaching: Cert
- ECE Administration: Cert
- Bilingual/Spanish English Teaching: Cert
- Infant/Toddler Care: Cert
- Working With Diverse Families: Cert
- Anti-Bias Curriculum: Cert
- ECE Children's Literacy Curriculum: Cert
- Curriculum Planning: Cert
- Spanish/English Early Childhood Teaching: SC

### Economics
- A.A.

### Engineering, General
- A.S.

### Engineering Technology:
- A.S. Cert
  - Architectural Drafting & Design: SC
  - Civil/Survey Drafting: SC
  - Computer Aided Drafting & Design: SC
  - Computer Animation: SC
  - Manufacturing Specialist: SC
  - Technology and Trades: SC

### English
- A.A.

### French
- A.A.

### General Education
- CSU General Education Breadth: Cert
- IGETC General Education: Cert

### General Science
- A.A. A.S.

### Geography
- A.A.

### Geology
- A.S.

### German
- A.A.

### Health Science/Community Health
- A.A.

### History
- A.A.

### Horticulture:
- Alternative Crop Production Methods: SC
- Arboriculture: SC
- General Horticulture: SC
- General Horticulture and Crop Production: A.S.
- Greenhouse and Nursery Management: Cert SC
- Home Horticulture: SC
- Landscape Horticulture: A.S. Cert
- Landscape Construction: SC
- Landscape Design: SC
- Landscape Gardener: SC
- Restoration Landscaping: SC

### Human Services
- Generalist Practice: Cert SC
- Drug and Alcohol Studies: SC

### International Studies
- A.A.

### Journalism
- A.A. A.S. Cert

### Liberal Arts & Sciences (Transfer)
- Arts & Humanities: A.A.
- Interdisciplinary Studies: A.A.
- Social Sciences: A.A.

### Liberal Arts & Sciences (Non-Transfer)
- Arts & Humanities: A.A. A.S.
- Interdisciplinary Studies: A.A. A.S.
- Social Sciences: A.A. A.S.

### Liberal Studies (Elementary Ed.)
- A.A.

### Mathematics
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Come study with us for an education that will work for you!

Our programs work! A spring 2008 survey showed that those who completed a Cabrillo certificate or degree earned an average annual increase in salary of 94% after completing school. Program information can be found in this Catalog under the program name and on our website, http://www.cabrillo.edu then click on "Majors, Degrees and Certificates."

Building Inspection
see Construction and Energy Management Department
Building Inspector Public Works Inspector

Construction and Energy Management
See Construction and Energy Management Department
Contractor Project Manager Site Superintendent Estimator

Culinary Arts and Hospitality Management
see Culinary Arts/Hospitality Management Department
Food Service Manager Cook

Early Childhood Education
see Early Childhood Education Department
Teacher Caregiver Assistant Teacher Director Supervisor Family Childcare Provider Infant Toddler Specialist

Horticulture
see Horticulture Department
Landscape Maintenance Worker Plant Propagator Nursery Grower Greenhouse Grower Landscape Designer Arborist Landscape Contractor Cut Flower Groomer Horticultural Consultant Restoration Specialist Pesticide Applicator

Human Services
see Human Services Department
Counselor Mental Health Technician Advocate Social Work Assistant Community Outreach Worker Case Management Aide Residential Counselor Probation Officer Eligibility and Outreach Worker Gerontology Aide Drug and Alcohol Counselor

Journalism
see Journalism Department
Reporter Writer Editor Digital Photography Photo Journalist Page Designer Prepress Publication TV News Correspondent/Anchor Camera Operator Multimedia Editor and Web Designer Video Editor Radio Correspondent Advertising Sales Manager

Welding
see Welding Department
AWS–SCW Senior Certified Welding Inspector AWS–CWE Certified Welding Educator

BUSINESS & COMPUTERS

Accounting/Finance
see Accounting Department
Bookkeeping Auditing Tax/Payroll Accounting General Office Self Employment

Administrative Support
see Computer Applications/Business Technology Department
Office Assistant Receptionist General Office

Animation
see Digital Media Department
Animation Illustration Character Design Advertising Web Design

Architectural Drafting & Design
see Engineering Technology Department
Architectural Designer/Draftsperson Architectural Intern

Business
See Business Department
Entry level and job advancement to middle management

Civil Survey Drafting & Design
see Engineering Technology Department
Civil Survey Designer/Draftsperson Civil Survey Assistant

Computer Aided Drafting & Design
see Engineering Technology Department
CAD Operator CAD/CAM Technician

Computer Animation
see Engineering Technology Department
Animation Artist 3-D Designer/Draftsperson Computer Animation Tech Solid Modeler

Computer/Business Applications
see Computer Applications/Business Technology Department
Administrative Assistant Customer Service Office Administration

Computer Networking and System Administration
see Computer and Information Systems Department
Network Administrator Network Technician System Administrator Information Security Specialist

Computer Science
see Computer Science Department
Computer Programming: C++, Java, Perl Computer Engineering Computer Science Software Engineering Game Programming

Computer Support Specialist
see Computer and Information Systems Department
Technical Support Specialist A+ Certification Hardware and Software Support

Digital Imaging
see Digital Media Department
Digital Illustrator Digital Photo Editor

Digital Publishing
see Digital Media Department
Digital Publishing Page Layout Illustrator Graphic Designer Digital Photographer

Digital Video
see Digital Media Department
Digital Video Producer and Editor
eCommerce
see Digital Media Department
eCommerce Site Designer and Producer

Engineering Technology
see Engineering Technology Department
Engineering Technician Circuit Designer Drafting and Design Tech Manufacturing Tech

Manufacturing Specialist
see Engineering Technology Department
Electronics Assembler Manufacturing Specialist

Print Media
see Digital Media Department
Graphic Production Artist Graphic Designer
Real Estate
see Real Estate Department
Sales Person  Appraisal  Property Management  Mortgage Company

Screen Media
see Digital Media Department
Interactive Media Designer  Motion Graphics Designer  Motion Media Producer

Web Design
see Digital Media Department
Web Designer  Web Production Artist  Information Architect

Web Development
see Digital Media Department
HTML Coder, Website Developer

Web Media
see Digital Media Department
Web Designer  Web Producer  2D Animator  Multimedia Producer  Game Designer

Web Production
see Digital Media Department
Web Production Artist  HTML Coder

Web Publishing
see Digital Media Department
Web Programmer  Website Producer

HEALTH OCCUPATIONS

Associate Degree Nursing (RN)
see Nursing Department
Registered Nurse

Dental Hygiene (RDH)
see Dental Hygiene Department
Dental Hygienist

EKG Technician
see Medical Assistant Department
Clinical or Hospital Setting

Fluoroscopy
see Radiologic Technology Department
Fluoroscopist

Magnetic Resonance Imaging
see Radiologic Technology Department
Magnetic Resonance Imaging Technologist

Mammography
see Radiologic Technology Department
Mammography Technologist

Medical Administrative Assistant
see Medical Assistant Department
Medical Biller  Medical Office Manager  Medical Assistant  Accounts Receivable Manager  Medical Accounting  Patient Services Representative  Collections Representative

Medical Assistant
see Medical Assistant Department
Unit Coordinator  Medical Records  Medical Assistant  Clinical Medical Assistant  Patient Service Representative

Medical Insurance Specialist
see Medical Assistant Department
Billing  Claims Processor  Claims Auditing  CPT Coding

Medical Receptionist
see Medical Assistant Department
Clinic, office or hospital based receptionist

Phlebotomy Technician
see Medical Assistant Department
Clinical or Hospital Setting

Radiologic Technology
see Radiologic Technology Department
Radiologic Technologist

PUBLIC SAFETY

Criminal Justice
see Criminal Justice Department
Law Enforcement  Corrections Community Service Officer

Emergency Medical Technician (EMT)
see Fire Technology Department
EMT Certification  EMT Recertification

Fire Service Management
see Fire Technology Department
Fire Service Management

Fire Technology
see Fire Technology Department
Fire Fighter  Fire Prevention
ACCOUNTING/FINANCE

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Mo Hassan, Program Chair, (831) 477-3201
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Accounting/Finance Occupational Program

Accounting/Finance

The Accounting program is designed to provide students with the skills and knowledge required for entry-level positions in accounting, industry, government, financial institutions, and small business. The program encompasses classroom instruction and extensive hands-on application with both manual and computerized accounting systems. Cabrillo College offers a Skills Certificate in Bookkeeping, a Certificate of Achievement in Accounting, and an Associate in Science Degree in Accounting.

Accounting Career Opportunities

Accounting graduates set up accounting systems that allow businesses or individuals to organize, maintain, and audit financial records. In their work, accountants may be involved in preparing tax returns, budgets, and financial statements, recording business transactions, advising businesses on accounting systems, or auditing financial records. Employment opportunities in accounting are plentiful, and are expected to continue to grow in the foreseeable future.

<table>
<thead>
<tr>
<th>Core Courses-Level I</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 151A Introduction to Accounting:</td>
<td>4</td>
</tr>
<tr>
<td>Bookkeeping Concepts</td>
<td></td>
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<tr>
<td>BUS 5 Business Information Systems</td>
<td>4</td>
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<tr>
<td>*BUS 155 Business Math</td>
<td>0-3</td>
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<tr>
<td>CABT 110A/B Computer Keyboarding-Alphabet,</td>
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<td>Numbers, and Symbols</td>
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<td>CABT 102 10-Key Calculator</td>
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<td>Total for Core Courses-Level I</td>
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*Students with skills equivalent to MATH 154 or higher are exempt from BUS 155 and may substitute 3 units from the list of approved electives.

<table>
<thead>
<tr>
<th>Core Courses-Level II</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ACCT 6 Spreadsheets for Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 159 Computer Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 163 Using Quickbooks</td>
<td>3</td>
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<tr>
<td>Total for Core Course Level II</td>
<td>11</td>
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</table>

<table>
<thead>
<tr>
<th>Approved Electives</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 1B Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 154 Income Tax Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 155 Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 158 Introduction to NonProfit and</td>
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</tr>
<tr>
<td>Government Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 199C Career Work Experience Education</td>
<td>1-3</td>
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<tr>
<td>BUS 9 Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 18 Business Law</td>
<td>4</td>
</tr>
<tr>
<td>BUS 20 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 52 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 60 International Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 68 International Business Law</td>
<td>4</td>
</tr>
<tr>
<td>BUS 163 Global Business Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4 Money Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 10 Introduction to Investments</td>
<td>3</td>
</tr>
</tbody>
</table>

Skills Certificate in Bookkeeping

Accounting Core Courses Level I .................... 10-13
ENGL 100 or ENGL 1A/1AH/1AMC/1AMCH or CABT 157 3
Total for Skills Certificate in Bookkeeping .... 13-16

Certificate of Achievement in Accounting

Accounting Core Courses Level I, II ............ 21-24
ENGL 100 or ENGL 1A/1AH/1AMC/1AMCH or CABT157 3
Total for Certificate of Achievement .......... 24-27
Associate in Science Degree in Accounting

Accounting Core Courses Level I, II .................................................. 21-24
ACCT 1A Financial Accounting ......................................................... 4
General Education ............................................................................ 21
Approved Electives ........................................................................... 3
Electives (any course number 1-199) ................................................. 8-11
Total for A.S. Degree in Accounting .................................................. 60

Certificate of Achievement in Financial Services is currently pending, awaiting approval by the California Community College’s Chancellor’s office. Please check www.cabrillo.edu for approval and availability of this program.

Accounting Courses

ACCT 1A
Financial Accounting
4 units; 4 hours Lecture, 1 hour Laboratory
Recommended Preparation: ACCT 151A; Eligibility for ENGL 100 and READ 100.
Teaches accounting concepts from the user’s perspective. Covers the preparation, communication, use and analysis of accounting information. Emphasis on accounting theory, critical thinking, and the use of accounting information in business decision-making. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

ACCT 1B
Managerial Accounting
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: ACCT 1A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the selection, use, and analysis of accounting information by managers. Covers cost accounting for manufacturing organizations, decision-making based upon accounting information, the evaluation of business segments, cost-volume-profit analysis, responsibility accounting, standard cost systems, and variance analysis.
Transfer Credit: Transfers to CSU, UC.

ACCT 6
Spreadsheets for Accounting
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: ACCT 151A or ACCT 1A.
Recommended Preparation: BUS 5 or CABT 41; Eligibility for ENGL 100 and READ 100.
Covers the creation, evaluation, and use of electronic spreadsheets in the accounting profession to present interest, depreciation, uncollectible accounts, financial analysis, and departmental activities. Includes spreadsheet design and management, formulas, functions, and charts.
Transfer Credit: Transfers to CSU.

ACCT 151A
Introduction to Accounting: Bookkeeping Concepts
4 units; 4 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers practical accounting, terminology, and the complete accounting cycle from documentation through journals, ledgers, and financial statements for both service and merchandising companies. Designed for careers in the field of accounting as well as business owners who wish to prepare their own accounting records. May be offered in a Distance-Learning Format.

ACCT 154
Income Taxation
4 units; 4 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches Federal and CA income tax concepts, planning, and preparation for individuals and businesses; qualifies for CA Tax Preparer Certification. Introduction to computer software used to prepare income tax returns.

ACCT 155
Payroll Accounting
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: ACCT 151A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introducing payroll accounting. Includes payroll calculations and Federal and California payroll tax requirements for withholding and reporting. Also covers labor laws, the importance of internal control, retirement plans, and workers’ compensation programs.

ACCT 158
Introduction to Government and Not-for-Profit Accounting
3 units; 3 hours Lecture
Prerequisite: ACCT 1A or ACCT 151A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores the similarities and differences between government/not-for-profit and commercial accounting, including applicable generally accepted accounting principles (GAAP), budgeting and fund accounting.

ACCT 159
Computer Accounting
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: ACCT 151A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces computer accounting, from data analysis and entry, through generation, interpretation and comparison of end-of-period financial statements using Peachtree Accounting software. Includes inventory valuation, cash flow statement, financial analysis, as well as accounting for a partnership, corporation, and manufacturer.
ACCT 163

**Using Quickbooks**
3 units; 2 hours Lecture, 5 hours Laboratory
Recommended Preparation: ACCT 151A; Eligibility for ENGL 100 and READ 100.

Introduces use of QuickBooks from the accounting practitioner’s perspective. Course includes setting up new businesses, entering data, locating information, and analyzing financial statements for service, merchandising, and manufacturing companies. May be offered in a Distance-Learning Format.

**Finance Courses**

FIN 4

**Money Management**
3 units; 3 hours Lecture
Recommended Preparation: BUS 155; Eligibility for ENGL 100 and READ 100.

For individuals who need to learn how to assess and plan their financial future. The course will introduce and familiarize students with such topics as financial planning, budgeting, taxes, real estate, credit, insurance, investments (stocks, bonds, and mutual funds) and retirement planning. The course will outline various methods to establish and live a more secure financial life. May be offered in a Distance-Learning Format. *Transfer Credit: Transfers to CSU.*

FIN 10

**Introduction to Investments**
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A survey of investment management and investment alternatives with particular emphasis on the equity markets. An analysis of investment goals, the relationship of risk to rewards, internal and external factors affecting market prices, choosing among investment alternatives, and the time value of money. This course involves the use of computers and Internet-based research. *Transfer Credit: Transfers to CSU.*

FIN 110

**Small Business Finance**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An Introduction to financial management for the manager, investor, and small business owner. Covers financial planning for the business, budgeting, financial statement, and performance analysis. *Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.*

FIN 160

**Principles of Bank Operations**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

This class is an introduction to money, investments, credit and lending and banking activity. Focus is placed on the role of banking in the economy and other financial firms, insurance, stock brokerage and mortgage banking.

FIN 161

**Introduction of Finance**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

This course surveys the fundamentals of the financial system and money. Topics include business enterprises, money, investments, banking, loans, business planning and basic computer accounting and financial decision-making.

FIN 162

**Introduction to Financial Management**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

This class is an introduction to the areas related to the financial management of the business firm. Topics include money, cash management, basic investment models, creating partnerships, business loan requests, and management techniques.

**ADAPTIVE PHYSICAL EDUCATION**

Health, Wellness, Physical Education and Athletics Division

Kathleen Welch, Division Dean
Division Office, Room 1102
Michel Witzig, Program Chair, (831) 479-6576
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) (831) 477- 5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Adaptive Physical Education Courses

ADAPT 90

**Adaptive Swimming**
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

For physically limited students. Includes basic swimming strokes and watermanship skills, with adaptation necessary to circumvent physical disability. Aides are available in the pool; a built-in ramp and a water chair are available at poolside. *Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.*

ADAPT 91

**Adaptive Bowling**
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Techniques of bowling, with a variety of adaptations to circumvent physical disability. Class held off campus. *Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.*
ADAPT 92
WHEELCHAIR BASKETBALL
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Improvement of physical conditioning and basketball skills for competitive wheelchair athletes.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ADAPT 93
EXERCISE AND FITNESS-ADAPTIVE
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
For physically limited students. A variety of special equipment designed to increase strength, endurance, flexibility, cardiovascular conditioning is available. Instructor and student develop a program to meet student’s unique needs.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ADAPT 94
Adaptive Tennis
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
For physically challenged and/or developmentally delayed learners.
Skill development in basic strokes, including strategy sessions in singles and doubles play.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ADAPT 96
Adaptive Yoga
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides adapted instruction on asanas (physical postures) for physically limited students with attention to breath awareness and postural alignment to develop strength, endurance, flexibility, balance and to reduce stress. Develops awareness and consciousness to establish the mind/body connection.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses: maximum credit–4 units.

AERONAUTICS
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Note: Offerings in the Aeronautics department have been suspended.

Aeronautics Courses

AERO 1
Basic Aeronautics
3 units; 3 hours Lecture
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.
Covers the preparation for the FAA Private Pilot-Airplane written examination, including fundamentals of flight, aircraft systems, performance, meteorology, airspace, air traffic control, federal aviation regulations, navigation and flight planning.
Transfer Credit: Transfers to CSU.

AERO 2
Instrument Aeronautics
3 units; 3 hours Lecture
Prerequisite: AERO 1 or equivalent.
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.
Covers the preparation for the FAA Instrument Pilot-Airplane written examination, including flight instrument systems, performance, airspace, air traffic control, meteorology, instrument charts, approach procedures, radio navigation and flight planning.
Transfer Credit: Transfers to CSU.

AERO 3
Advanced Aeronautics
3 units; 3 hours Lecture
Prerequisite: AERO 1 or private pilot license.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A course designed to acquaint potential commercial pilots with advanced topics in aerodynamics, aircraft systems and performance, meteorology, radio navigation, federal aviation regulations and high performance aircraft operation. A discussion of the fundamentals of instruction and the analysis and performance of flight maneuvers will be included. Prepares the student for the FAA commercial and commercial flight instructor written examinations.
Transfer Credit: Transfers to CSU.
**ALLIED HEALTH**

**Health, Wellness, Physical Education and Athletics Division**
Kathleen Welch, Division Dean
Division Office, Room 1102
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

**Allied Health Courses**

**ALH 101**
A Review of Anatomy and Physiology
2 units; 2 hours Lecture
Prerequisite: BIO 4 and BIO 5.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reviews the principles of human anatomy and physiology for those students awaiting admission to an allied health profession and for those health professionals who desire to review the subject matter. May be offered in a Distance-Learning Format.

**ALH 200A-Z**
Special Topics in Allied Health
0.5-4 units; 0.1 hour Lecture, 0.2 hour Laboratory
Recommended Preparation: Can be specified with each individual course.
Special topics courses designed to prepare students for success in Allied Health Programs and their prerequisites.

**AMERICAN STUDIES**

**Human Arts and Social Sciences Division**
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

**Information for American Studies Majors**

The program listed below is a pattern of courses leading to an Associate in Arts Degree only and does not meet the transfer requirements for the American Studies major. Students planning to transfer should consult the catalog of the university to which they intend to transfer and see a counselor.

The American Studies Program offers an examination of the basic institutions and fundamental trends in United States culture. The aim is to address the pressing questions of our time with a broad understanding of the institutions and trends.

An American Studies Program is available at many UCs and CSUs. Usually, students need to take an introductory course when they transfer to the campus of their choice. American Studies is an interdisciplinary program that in most cases does not require specific lower division preparation.

**MODEL PROGRAM FOR AMERICAN STUDIES**

The following model program fulfills requirements for the A.A. Degree in American Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Choose seven courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 4</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 17A/17AH</td>
<td>United States History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 17B/17BH</td>
<td>United States History since 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 18A</td>
<td>Asian American History: Chinese, Japanese, and Korean Americans</td>
<td>3</td>
</tr>
<tr>
<td>HIST 18B</td>
<td>Asian American History: Filipino, Asian Indian, and Southeast Asian Americans</td>
<td>3</td>
</tr>
<tr>
<td>HIST 29A</td>
<td>African American History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>JOURN 21</td>
<td>Mass Communications</td>
<td>3</td>
</tr>
<tr>
<td>PS 1/1H</td>
<td>Introduction to Government</td>
<td>3</td>
</tr>
<tr>
<td>WS 1</td>
<td>Introduction to Women’s Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

**Associate in Arts Degree in American Studies**

- General Education: 30
- American Studies Core Courses: 21
- Other Electives (any course numbered 1-99): 9
- Total for A.A. Degree in American Studies: 60

**ANTHROPOLOGY**

**Human Arts and Social Sciences Division**
Nancy A. Brown, Division Dean
Division Office, Room 420
Chuck Smith, Program Chair, (831) 477-5211
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

(For Archaeology courses, see "Archaeological Technology")
Information for Anthropology Majors

Anthropology is a multidisciplinary and yet holistic way to study all aspects of humanity, from biological origins to ways of social behavior, past and present. Anthropology presents to the student a world view that is personally enriching as well as practical. An A.A. or B.A. can lead to entry level jobs in archaeology, research, travel, and international trade and communication. Graduate degrees allow one to assume positions as an anthropologist, archaeologist, instructor or professor, or positions in forensics, museums, international aid, or research.

Career opportunities include archaeologist, museum director, teacher, health assistance occupations, tour leader, civil services in national parks, international aid officials, or college instructor. See the Career Center or talk to the anthropology faculty about such opportunities.

MODEL PROGRAM FOR ANTHROPOLOGY

The following model program fulfills requirements for the A.A. Degree in Anthropology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
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<tr>
<td>ANTHR 1/1H Introduction to Anthropology: Biological</td>
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<tr>
<td>ANTHR 1L Biological Anthropology Lab</td>
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<tr>
<td>ANTHR 2 Introduction to Anthropology: Cultural</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 3/ARCHE 1 Introduction to Anthropology: Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 8 Anthropology of Religion</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
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<tr>
<td>ANTHR 13 Forensic Anthropology</td>
<td>3</td>
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</table>

Approved Anthropology Electives for the A.A. Degree:

<table>
<thead>
<tr>
<th>Elective</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ANTHR 6 Peoples and Cultures of Non-Western</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 7 Peoples and Cultures of Non-Western</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 8 Anthropology of Religion</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 13 Forensic Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 17 Global Perspectives of Food and Culture</td>
<td>3</td>
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Any course listed in Area D of the A.A. Degree requirements.

Prospective Anthropology majors are encouraged to consult an Anthropology instructor regarding recommended elective courses.

Associate in Arts Degree in Anthropology

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
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<tbody>
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<td>General Education</td>
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<td>Anthropology Core Courses</td>
<td>13</td>
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<tr>
<td>Approved Electives</td>
<td>9</td>
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<tr>
<td>Other Electives (any course number 1-99)</td>
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<tr>
<td><strong>Total for A.A. Degree in Anthropology</strong></td>
<td><strong>60</strong></td>
</tr>
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</table>

Anthropology Courses

**ANTHR 1**

Introduction to Anthropology: Biological

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys the basic principles of biological anthropology with an emphasis on the mechanisms of biological evolution, genetics and inheritance, comparative primate behavior, human evolution, adaptability and variation, and the meaning of race.

Transfer Credit: Transfers to CSU, UC.

**ANTHR 1H**

Honors Introduction to Anthropology: Biological

3 units; 3 hours Lecture

Prerequisite: Honors Standing.

Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.

Surveys the basic principles of biological anthropology with an emphasis on the mechanisms of biological evolution, genetics and inheritance, comparative primate behavior, human evolution, adaptability and variation, and the meaning of race. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.

Transfer Credit: Transfers to CSU, UC.

**ANTHR 1L**

Biological Anthropology Lab

1 unit; 3 hours Laboratory

Prerequisite: ANTHR 1 or concurrent enrollment.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a hands-on exploration of topics in biological anthropology. Areas investigated include human genetics, evolutionary forces, human osteology, forensic anthropology, comparative and functional skeletal anatomy, primate behavior, human fossil record, and modern human variation.

Transfer Credit: Transfers to CSU, UC.

**ANTHR 2**

Introduction to Anthropology: Cultural

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a cross-cultural, comparative study of contemporary human behavior with emphasis on the effects of globalization on contemporary cultures. Topics investigated include cultural patterns, language, subsistence, economics, religion, kinship, values and norms, sex and gender, marriage, cultural change, and migration.

Transfer Credit: Transfers to CSU, UC.
ANTHR 3
Introduction to Anthropology: Archaeology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the basic theories and principles of contemporary scientific archaeology and the methods through which archaeologists recover and interpret the past. Topics include the history of archaeology; basic methods for excavation, analysis, and interpretation of material remains; strategies for explaining cultural behavior and cultural change; and the relevance of archaeological studies to contemporary social issues. Not a survey of world prehistory, but draws on case studies of significant worldwide archaeological sites that span the entire period of human existence. (Offered as both ANTHR 3 and ARCHE 1. Student may enroll in either course for credit, but not both.)
Transfer Credit: Transfers to CSU, UC.

ANTHR 6
Peoples and Cultures of Non-Western Tradition: California
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys the origins and history of the native peoples of California along with an in-depth examination of selected modern native cultures. Includes service learning connections with local Indian groups.
Transfer Credit: Transfers to CSU, UC.

ANTHR 7
Peoples and Cultures of Non-Western Tradition: North America
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents, from an anthropological perspective, an ethnohistorical and ethnographic survey of the diverse American Indian societies and cultures north of Central Mexico. Also examines the history of Indian-European contact with a focus on its effects on both American Indian and Euro-American cultures through time. Contemporary issues such as exploitation of American Indian religious ceremonies, reburial of archaeological remains and land rights are examined using a multiplicity of voices reflecting American Indian and non-American Indian perspectives.
Transfer Credit: Transfers to CSU, UC.

ANTHR 8
Anthropology of Religion
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores and analyzes, from an anthropological perspective, religious traditions in diverse cultural contexts with particular focus on the effects of globalization on religious beliefs and practices. Topics investigated include mythology, magic, witchcraft, sorcery, revitalization movements, shamanism, ethnomedicine, ritual, and the ways in which religion relates to gender and ethnicity within the contemporary world.
Transfer Credit: Transfers to CSU, UC.

ANTHR 9
Global Society and Culture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines contemporary social, cultural, economic, political, and environmental change in a global context. Focuses on the emergence of global economy, the globalization of culture, transnational migrations, technological and environmental changes, and global social movements. Explores debates over globalization and the sometimes violent political, ethnic and religious responses to what is perceived as cultural and economic homogenization on a global scale. Offered as both ANTHR 9 AND SOC 9. Student may enroll in either course for credit, but not both.
Transfer Credit: Transfers to CSU, UC.

ANTHR 13
Forensic Anthropology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the application of the science of physical anthropology to the medico-legal process with an emphasis on the identification of skeletal, badly decomposed, or otherwise unidentified human remains. Includes discussion of investigation of crime scenes; how the biological profile of an individual is determined from the skeleton; how skeletal trauma are evaluated; estimation of the interval since death; and how far these assessments can be supported. Case studies of documented individuals are used. While the practical aspects of this field will be the primary focus, attention will also be drawn to the incorporation of anthropological approaches to dealing with death and the handling of human remains.
Transfer Credit: Transfers to CSU.

ANTHR 17
Global Perspectives of Food and Culture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the social, cultural, and ecological aspects of food, food products, and food resources in a global, historical, and comparative perspective.
Transfer Credit: Transfers to CSU, UC.

ANTHR 19A–Z
Special Topics in Anthropology
1-3 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores selected topics in anthropology not covered by regular catalog offerings.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

ANTHR 118
History and Anthropology of Wine
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys wine and its role in culture, society, and world trade through prehistory and history, using anthropological approaches.
APPLIED LIVING ARTS
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room VAPA1007
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Applied Living Arts Courses

ALA 10
Beginning Clothing Construction
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatable: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A beginning clothing construction course which includes the study of pattern selection, fabric selection and fitting, with emphasis on basic construction processes.
Transfer Credit: Transfers to CSU.

ALA 11
Intermediate Clothing Construction
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatable: May be taken 4 times.
Prerequisite: ALA 10 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Designed for the student with some sewing experience. Course includes intermediate clothing construction techniques, pattern alteration, pattern construction, custom fitting and shaping of materials.
Transfer Credit: Transfers to CSU.

ALA 12
Advanced Clothing Construction/Tailoring
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatable: May be taken 4 times.
Prerequisite: ALA 10 or ALA 11 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The study of advanced clothing techniques and tailoring, including the construction of a tailored jacket or coat.
Transfer Credit: Transfers to CSU.

ALA 13
Sewing With Special Fabrics
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatable: May be taken 4 times.
Prerequisite: ALA 10 or ALA 11 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Experimentation with methods and techniques of construction using newly developed fabrics and shaping materials.
Transfer Credit: Transfers to CSU.

ALA 40
Introduction to Interior Design
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An overview of interior design, with practical applications of color, lighting, furnishings, textiles, layout and building codes relating to home interiors.
Transfer Credit: Transfers to CSU.

ALA 41
Residential Interior Design
3 units; 3 hours Lecture
Prerequisite: ALA 40 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Emphasizes planning and designing residential interior spaces. Projects will include studies of special spaces within the home and a complete home with scale drawings, color schemes and furnishings.
Transfer Credit: Transfers to CSU.

ALA 42
Commercial Interior Design
3 units; 3 hours Lecture
Prerequisite: ALA 40 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Planning and design for interior spaces with emphasis on commercial projects. Projects will include space planning, including the use of flow diagrams and employee relationship charts for offices and public buildings.
Transfer Credit: Transfers to CSU.

ALA 44
Historic Furniture Styles
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This course studies American and European furniture and interior design styles from antiquity to the present. Color slides will accompany the lecture.
Transfer Credit: Transfers to CSU.

ALA 150A–Z
Special Topics- Clothing and Textiles
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatable: May be taken 4 times.
Prerequisite: ALA 10 and ALA 11 or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A course designed for study in selected areas of interest in clothing and textiles, such as special fabrics or the use of the computer in sewing. The special selected topic will be announced and described in the class schedule.
ARCHAEOLOGICAL TECHNOLOGY  
Human Arts and Social Sciences Division  
Nancy A. Brown, Division Dean  
Division Office-Room 420  
Chuck Smith, Program Chair, (831) 477-5211  
Dustin McKenzie, For additional information, (831) 479-6294  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6348 or (831) 479-6297 for more information  
http://www.cabrillo.edu/programs

Archaeological Technology Courses

ARCHE 1  
Introduction to Anthropology: Archaeology  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces the basic theories and principles of contemporary scientific archaeology and the methods through which archaeologists recover and interpret the past. Topics include the history of archaeology; basic methods for excavation, analysis, and interpretation of material remains; strategies for explaining cultural behavior and cultural change; and the relevance of archaeological studies to contemporary social issues. Not a survey of world prehistory, but draws on case studies of significant worldwide archaeological sites that span the entire period of human existence. (Offered as both ANTHR 3 and ARCHE 1. Student may enroll in either course for credit, but not both.)  
*Transfer Credit:* Transfers to CSU, UC.

ARCHE 3  
Archaeological Techniques: Archival Research and Data Management  
3 units; 3 hours Lecture or 6 hours Laboratory  
Prerequisite: ANTHR 3 and ARCHE 1 or equivalent experience.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Focuses on understanding and utilizing historical archives and data for purposes of archaeological research.  
*Transfer Credit:* Transfers to CSU.

ARCHE 113A  
Planning for the Past: National Legislation & Requirements  
1 unit; 1 hour Lecture  
Fall 2009 only.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Focuses on an introduction to historic preservation and to basic federal laws and regulations as they relate to cultural resources management. The laws and regulations mentioned above would include the National Historic Preservation Act 1966, National Environmental Policy Act 1969, the Archaeological Resources Protection Act 1979, Native American Graves Protection and Repatriation Act 1989.

ARCHE 113B  
Planning for the Past: California Legislation & Requirements  
1 unit; 1 hour Lecture  
Fall 2009 only.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Focuses on an introduction to California Environmental Quality Act (C.E.Q.A.) and the various state bureaucratic rules affecting cultural resource regulation in California in relationship to California Indians, historic resources, and proposed development and construction.

ARCHE 113C  
Planning for a Future in the Past  
1 unit; 1 hour Lecture  
Spring 2010 only.  
Prerequisite: ANTHR 3 and ARCHE 1.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Focuses on preparing for employment with federal and state agencies, consultants, and other entry level employment in archaeology especially in California.
ART HISTORY
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room VAPA1007
Jamie Abbott, Program Chair, (831) 479-6236
Brian Legakis, Art History Program Coordinator, (831) 479-6368
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Transfer Credit in Art History
All Cabrillo College art history courses are given 3 units of Transfer Credit. There are no limits in Transfer Credit when students complete one course of art history. Limits apply after completing one course in Western art. AH 11, AH 12, AH 13, AH 14 are courses in Western art for all students, and especially, for those who transfer to a UC campus. AH 20A and AH 20B are courses in Western art for all students, especially for those who transfer to a CSU campus. After completing one of these courses, students who enroll in a second course should follow the information listed under the specific courses below. Because UC and CSU courses, students who enroll in a second course should follow the information listed under the specific courses below. Because UC and CSU may differ in transfer requirements, be sure to see a counselor about which courses are required for your transfer institution.

Information for Art History Majors
The Art History Program offers a course of study for students to learn the subject of art history and how it relates to the study of works of art. Students enrolled in art history courses learn about the subjects, forms, and purposes of art within each historical period that they study. They learn about the artists, the patrons, and the audiences who viewed the works of art. Students learn to accurately identify and describe works of art, as well as to use the principles of art history in their critical writing about art. They also learn about related approaches of visual analysis which reflect changes in the discipline of art history, and which become an additional basis to critical thinking and writing about art. Learning experiences in art history are presented through illustrated lectures, discussions, readings, films, video and slide viewing, gallery exhibit activities, and art museum visits.

Career opportunities include: art history teacher, art slide librarian, art critic, art history researcher/author, art conservator, art appraiser, art therapist, gallery director, museum curator, and arts administrator. All art history courses are transferable to UC and CSU systems, and most meet the general education requirements in humanities and fine arts.

The student with a transferable Associate in Arts Degree in Art History is prepared for upper-division work in the major at four-year institutions. The major is available at UC and CSU systems, and at other colleges and universities.

MODEL PROGRAM FOR ART HISTORY
The following model program fulfills requirements for the A.A. Degree in Art History at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a Counselor for advisement for transfer to any four-year institution.

Art History Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 11/11H</td>
<td>Ancient Art</td>
<td>3</td>
</tr>
<tr>
<td>AH 12</td>
<td>Middle Ages: Art/Mediterranean World and Europe (A.D. 300-1400)</td>
<td>3</td>
</tr>
<tr>
<td>AH 13</td>
<td>Renaissance to Mid-19th Century</td>
<td>3</td>
</tr>
<tr>
<td>AH 14</td>
<td>Modern Art</td>
<td>3</td>
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OR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AH 20A</td>
<td>Survey of Art from Prehistoric through Medieval Periods</td>
<td>3</td>
</tr>
<tr>
<td>AH 20B</td>
<td>Survey of Art from the Renaissance to the Present</td>
<td>3</td>
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</table>

Multicultural Art History Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 16</td>
<td>Art of India &amp; Southeast Asia</td>
<td>3</td>
</tr>
<tr>
<td>AH 17</td>
<td>Art of China, Korea, &amp; Japan</td>
<td>3</td>
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<tr>
<td>AH 18</td>
<td>Art in America to 1900</td>
<td>3</td>
</tr>
<tr>
<td>AH 19</td>
<td>Art of the Americas</td>
<td>3</td>
</tr>
<tr>
<td>AH 52</td>
<td>Latin American Art</td>
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Studio Courses

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<th>Title</th>
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<tbody>
<tr>
<td>ART 2A</td>
<td>Drawing &amp; Composition</td>
<td>3</td>
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<tr>
<td>ART 4</td>
<td>Beginning Design: Design &amp; Color</td>
<td>3</td>
</tr>
<tr>
<td>ART 5</td>
<td>Beginning Design: 3-Dimensional Form</td>
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Art History Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>AH 10</td>
<td>Appreciation/Introduction to the Visual Arts</td>
<td>3</td>
</tr>
<tr>
<td>AH 53</td>
<td>Contemporary Art and Visual Culture</td>
<td>3</td>
</tr>
<tr>
<td>AH 77</td>
<td>Correlation of the Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

Recommended from Related Disciplines:
Four semesters of French or German; Survey of Western Civilization (HIST 4AB), Contemporary Trends in Photography (AP 45), and one multicultural course in history.

A.A. Degree in Art History

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<td>General Education</td>
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<tr>
<td>Art History Core Courses</td>
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<td>6-12</td>
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<tr>
<td>Multicultural Art History Courses</td>
<td></td>
<td>6</td>
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<tr>
<td>Approved Studio Art Courses</td>
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<td>Approved Art History Electives or Other Art History Courses</td>
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<td>3-9</td>
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<tr>
<td>Electives (any course numbered 1-99)</td>
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</tr>
<tr>
<td>Total for A.A. Degree in Art History</td>
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</table>

Art History Courses

AH 10
Appreciation/Introduction to the Visual Arts
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the forms, processes and styles of the visual arts. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.
AH 11  
**Ancient Art**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies the Art of Prehistory, Ancient Near East, Egypt, Crete, Greece, and Rome through art historical analysis and related approaches to viewing art and images.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Students who enroll in AH 11 should not enroll or have credit in AH 20A. See "Transfer Credit in Art History" above, for more detailed information on transfer of Art History courses.

AH 11H  
**Honors Ancient Art**  
3 units; 3 hours Lecture  
Prerequisite: Honors Standing.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Studies the Art of Prehistory, Ancient Near East, Egypt, Crete, Greece, and Rome through art historical analysis and related approaches to viewing art and images.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Students who enroll in AH 11H should not enroll or have credit in AH 20A. See "Transfer Credit in Art History" above, for more detailed information on transfer of Art History courses.

AH 12  
**Middle Ages: Art/Mediterranean World & Europe (A.D. 300-1400)**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
This is a foundation course to the study of European art (A.D. 300-1400). It studies the development of Christian art in the Mediterranean World and in Europe during the Early Medieval, Romanesque and Gothic eras. Islamic art is studied.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Students who enroll in AH 12 should not enroll or have credit in AH 20A. See "Transfer Credit in Art History" above, for more detailed information on transfer of Art History courses.

AH 13  
**Renaissance to Mid-19th Century**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies the Art of the Renaissance in Europe, including the art of the Baroque, Rococo, and early Modern eras through art historical analysis and related approaches to viewing art and images.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Students who enroll in AH 13 should not enroll or have credit in AH 20B. See "Transfer Credit in Art History" above, for more detailed information on transfer of Art History courses.

AH 14  
**Modern Art**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies the art of Europe and the United States from the mid-19th century to the present through historical analysis and related approaches to viewing art and images.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Students who enroll in AH 14 should not enroll or have credit in AH 20B. See "Transfer Credit in Art History" above, for more detailed information on transfer of Art History courses.

AH 16  
**Art of India and Southeast Asia**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Surveys the history of the visual arts of India and Southeast Asia, including Tibet and Nepal, from ancient to modern times.  
*Transfer Credit:* Transfers to CSU, UC.

AH 17  
**Art of China, Korea and Japan**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Surveys the history of the visual arts of China, Korea and Japan from ancient to modern times.  
*Transfer Credit:* Transfers to CSU, UC.

AH 18  
**Art in America to 1900**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Surveys the native arts of the Eastern Mound Builders, Southwest Anasazi, Northwest Coast and Eskimo cultures as well as European art traditions in colonial United States and Canada to 1900.  
*Transfer Credit:* Transfers to CSU, UC.

AH 19  
**Art of the Americas**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Surveys the history of the visual arts of Pre-Colombian cultures in Latin America, especially Mexico.  
*Transfer Credit:* Transfers to CSU, UC.
AH 20A
Survey of Art from Prehistoric Through Medieval Periods
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys Prehistoric, Ancient, Classical, Early Christian, Islamic, and Medieval art. Includes a selection of representative art works from each period. Illustrated lectures. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU; UC, with limits: Students who enroll in AH 20A should not enroll or have credit in AH 11 or 12. See “Transfer Credit in Art History” above, for more detailed information on transfer of Art History courses.

AH 20B
Survey of Art from the Renaissance to the Present
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys art of the Renaissance, Baroque, 19th and 20th centuries. Includes a selection of representative art works from each period. Illustrated lectures.

Transfer Credit: Transfers to CSU; UC, with limits: Students who enroll in AH 20B should not enroll or have credit in AH 13 or 14. See “Transfer Credit in Art History” above, for more detailed information on transfer of Art History courses.

AH 52
Latin American Art
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys the visual arts of Mexico, Central and South America from colonial to contemporary times. Course includes topics in Chicano and Mexican American art.

Transfer Credit: Transfers to CSU, UC.

AH 53
Contemporary Art and Visual Culture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents topics in contemporary art and introduces visual culture as a field of study. Artworks are presented in relation to contemporary themes and world-wide media. Variability of perception and interpretation is presented and discussed.

Transfer Credit: Transfers to CSU, UC.

AH 77
Correlation of the Arts
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies similarities and differences in the visual arts, music, and theatre arts are studied from an interdisciplinary perspective. Presents topics in creativity, aesthetics, style, and historical context are presented from a variety of viewpoints. Develops an awareness, understanding, and respect for diverse cultures through lecture, performance, and demonstration.

Transfer Credit: Transfers to CSU, UC.

ART PHOTOGRAPHY
Visual, Applied and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room VAPA1007
Gordon Hammer, Co-Program Chair, (831) 479-6188
Susan Hoisington, Co-Program Chair, (831) 479-6131
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Art Photography Courses

AP 9A
Beginning Photography
3 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the basic principles, practice and aesthetics of black and white photography including camera operation, film processing and darkroom based printing, print presentation, composition and visual communication. Course includes lecture, demonstration, critique, darkroom laboratory work and field studies.

Transfer Credit: Transfers to CSU, UC.

AP 9B
Intermediate Photography
3 units; 3 hours Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: AP 9A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Continues the application of the principles and practices of black and white photography including camera operation, film processing and darkroom based printing, print presentation, composition and visual communication. Course includes lecture, demonstration, critique, darkroom laboratory work and field studies.

Transfer Credit: Transfers to CSU; UC, with limits: for 3 units only.

AP 9C
Advanced Photography
3 units; 3 hours Lecture and 3 hours Laboratory
Repeatability: May be taken 3 times.
Prerequisite: AP 9B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Continues the application of the principles and practices of black and white photography from AP 9A with a focus on fiber base paper printing techniques, Zone System practices and thematic projects. Activities include lecture, demonstration, critique, darkroom laboratory work and field studies.

Transfer Credit: Transfers to CSU.
AP 40A–Z
Studies in Photography
1-3 units; 0.67 hour Lecture, 1.33 hours Laboratory
Repeatability: May be taken 4 times.
Investigates special areas of interest in Photography. The special area (i.e. field studies, workshops in specific photographic techniques, etc.) will be announced and described in the Schedule of Classes.
Transfer Credit: Transfers to CSU.

AP 42
Alternative Photographic Processes
3 units; 3 hours Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: AP 9B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Investigates creative photographic image making utilizing historical, contemporary, and non-traditional applications of silver-based and non-silver photographic processes, mixed media combinations and digital imaging techniques. Activities include lecture, demonstration, critique, laboratory work and field studies.
Transfer Credit: Transfers to CSU.

AP 43
Basic Color Photography
3 units; 3 hours Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: AP 9B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces exposure and processing of color negative and transparency film, traditional lab printing techniques, print finishing and presentation, correlations between traditional and digital materials and processes, and the expressive use of color. Activities include lecture, demonstration, critique, lab work and field studies.
Transfer Credit: Transfers to CSU, UC.

AP 45
Contemporary Trends in Photography
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the images of contemporary photographers worldwide to illustrate the major themes and concepts in photography from 1945 to the present. Includes visual presentations of images, discussions and gallery field trips designed to enhance the student’s personal vision and promote creative visual thinking. No lab time required.
Transfer Credit: Transfers to CSU, UC.

AP 46A
Digital Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: AP 9A or AP 40ID or equivalent skills and CS 1L or DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches tools and techniques for creating expressive photographic images with Adobe Photoshop including scanning, importing, manipulating, printing and digital output. Covers menus and tools, selection controls, retouching, global and selective image adjustments, filters & effects, compositing, and combining text and imagery. Taught on Macintosh. Adaptable to Windows. Students may use either film or digital cameras.
Transfer Credit: Transfers to CSU.

AP 46B
Digital Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: AP 46A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues the study of digital photography from AP 46A with a focus on integrating aesthetic and design principles with imaging software possibilities to expand creative expression. Taught on Macintosh. Adaptable to Windows. Students may use either film or digital cameras.
Transfer Credit: Transfers to CSU.

AP 47
Lighting for Traditional and Digital Photography
3 units; 3 hours Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: AP 9B or equivalent skills.
Recommended Preparation: AP 40MLF; Eligibility for ENGL 100 and READ 100.
Introduces fine art and commercial applications of studio lighting equipment and techniques applicable to film based and digital photographic practices, including portraiture, tabletop photography, and medium and large format cameras. Activities include lecture, demonstration, critique, lab work and field studies.
Transfer Credit: Transfers to CSU.

ART–STUDIO
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room VAPA1007
Jamie Abbott, Program Chair, (831) 479-6236
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs
### Information for Art–Studio Majors

The Art–Studio Program offers beginning and intermediate courses that provide students with the knowledge and experience needed for a broad understanding of the visual arts. For beginning students, the curricula offer drawing and composition, two-dimensional and three-dimensional design, and art history. After completing the four core courses in studio art, students may then advance to intermediate courses and complete their major by concentrating their course work in one of the studio art discipline options. Students may also take a course designed to investigate special areas of interest in the visual arts by taking courses in ART 40 A-Z or AP 40 A-Z for photography.

Art gallery viewing is provided in the Cabrillo Art Gallery which presents exhibitions of original works by a range of artists during each academic year. The exhibitions are an integral part of the instructional program, and students participate regularly in gallery exhibit observations.

Career opportunities include: exhibiting artist, art teacher, graphic designer, artist/photographer, art illustrator, art technician, commercial artist, and other professions in creative endeavor. Career opportunities are also available in galleries, museums, and art organizations.

The student with a transferable Associate in Arts Degree in Art–Studio is prepared for upper division work in the major at four-year institutions. The major is available at UC and CSU systems, the San Francisco Art Institute, the College of Arts and Crafts, and at other colleges of art and schools of design.

### MODEL PROGRAM FOR ART-STUDIO

The following model program fulfills requirements for the A.A. Degree in Art–Studio at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at [www.assist.org](http://www.assist.org). Please see a counselor for advisement for transfer to any four-year institution.

#### Art–Studio Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 2A</td>
<td>Drawing and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ART 2B</td>
<td>Drawing and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ART 4</td>
<td>Beginning Design: Design and Color</td>
<td>3</td>
</tr>
<tr>
<td>ART 5</td>
<td>Beginning Design: 3-Dimensional Form</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Art History Core Courses (6 units)

Since Art–Studio major preparation can vary at four-year campuses, see a counselor before deciding on Art History 1 or 2, or a different pattern, to the 6 unit requirement.

### Art History Option 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 20A</td>
<td>Survey of Art from Prehistoric through Medieval Periods</td>
<td>3</td>
</tr>
<tr>
<td>AH 20B</td>
<td>Survey of Art from Renaissance to the Present.</td>
<td>3</td>
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</tbody>
</table>

### Art History Option 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 11/11H</td>
<td>Ancient Art</td>
<td></td>
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<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AH 12</td>
<td>Middle Ages: Art/Mediterranean World and Europe (A.D. 300-1400)</td>
<td>3</td>
</tr>
<tr>
<td>AH 13</td>
<td>Renaissance to Mid-19th Century</td>
<td></td>
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<tr>
<td>OR</td>
<td></td>
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</tr>
<tr>
<td>AH 14</td>
<td>Modern Art</td>
<td>3</td>
</tr>
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</table>

#### STUDIO ART OPTION

Select one option for completing 9 units of studio art emphasis:

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>ART 7A</td>
<td>Ceramics-Hand Building</td>
<td></td>
</tr>
<tr>
<td>ART 7B</td>
<td>Ceramics-Wheel Forming</td>
<td></td>
</tr>
<tr>
<td>ART 71</td>
<td>Intermediate Ceramic Processes</td>
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</tbody>
</table>

### Ceramics Option

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ART 21</td>
<td>Textile Surface Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 23</td>
<td>Weaving</td>
<td>3</td>
</tr>
<tr>
<td>ART 24</td>
<td>Fiber Arts: Textiles, Fiber, Paper</td>
<td>3</td>
</tr>
<tr>
<td>ART 46</td>
<td>Artists’ Books</td>
<td>3</td>
</tr>
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</table>

#### Drawing Option

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>ART 3A</td>
<td>Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 3B</td>
<td>Life Drawing</td>
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</tr>
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</table>

#### (Select one)

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<tbody>
<tr>
<td>ART 31A</td>
<td>Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 37A</td>
<td>Watercolor</td>
<td>3</td>
</tr>
</tbody>
</table>

### Art Photography Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AP 9A</td>
<td>Beginning Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 9B</td>
<td>Intermediate Photography</td>
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#### (Select one)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AP 42</td>
<td>Alternative Photographic Processes</td>
<td>3</td>
</tr>
<tr>
<td>AP 43</td>
<td>Basic Color Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 46A</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 47</td>
<td>Lighting for Traditional and Digital Photography</td>
<td>3</td>
</tr>
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### Graphic Art Option

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>ART 3A</td>
<td>Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 27</td>
<td>Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 28</td>
<td>Lettering/Typography</td>
<td>3</td>
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</tbody>
</table>

### Small Scale Metal/Jewelry Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ART 8A</td>
<td>Small Scale Metal/Jewelry</td>
<td>3</td>
</tr>
<tr>
<td>ART 8B</td>
<td>Small Scale Metal/Jewelry</td>
<td>3</td>
</tr>
<tr>
<td>ART 38</td>
<td>Metalsmithing</td>
<td>3</td>
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</table>

### Painting Option

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>ART 37A</td>
<td>Watercolor</td>
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<tbody>
<tr>
<td>ART 3A</td>
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</tr>
<tr>
<td>ART 3B</td>
<td>Life Drawing</td>
<td>3</td>
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</tbody>
</table>

### Printmaking Option

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ART 3A</td>
<td>Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 32</td>
<td>Printmaking: Etching and Intaglio</td>
<td>3</td>
</tr>
<tr>
<td>ART 33</td>
<td>Screen Printing</td>
<td>3</td>
</tr>
<tr>
<td>ART 45</td>
<td>Lithography</td>
<td>3</td>
</tr>
<tr>
<td>ART 73</td>
<td>Intermediate Intaglio Prints</td>
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</tr>
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</table>

### Sculpture Option

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ART 34A</td>
<td>Sculpture: Direct Processes</td>
<td>3</td>
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#### (Select two)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 34B</td>
<td>Sculpture: Direct Processes</td>
<td>3</td>
</tr>
<tr>
<td>ART 35</td>
<td>Sculpture: Casting</td>
<td>3</td>
</tr>
<tr>
<td>ART 36</td>
<td>Sculpture: Moldmaking</td>
<td>3</td>
</tr>
</tbody>
</table>
### Art–Studio Courses

**ART 2A**  
**Drawing and Composition**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Teaches fundamentals of composition, and the development of drawing skills with various drawing media. Develops appreciation and perception by means of studio work, library references, slides, field trips and lectures.  
*Transfer Credit*: Transfers to CSU, UC.

**ART 2B**  
**Drawing and Composition**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Prerequisite: ART 2A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Refines and expands technical drawing skills from ART 2A with an emphasis on personal expression, thematic development, and an introduction to the use of color.  
*Transfer Credit*: Transfers to CSU, UC.

**ART 3A**  
**Life Drawing**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Prerequisite: ART 2A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Students learn fundamentals of the drawing of the human figure. Emphasizes personal interpretation and form.  
*Transfer Credit*: Transfers to CSU, UC.

**ART 3B**  
**Life Drawing**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: ART 2A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Continues development of fundamental skills of the representation of the human figure. Drawing from life. Emphasizes composition.  
*Transfer Credit*: Transfers to CSU, UC.

**ART 4**  
**Beginning Design: Design and Color**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Emphasizes the manipulation of a two-dimensional surface with the elements of art and use of color.  
*Transfer Credit*: Transfers to CSU, UC.

**ART 5**  
**Beginning Design: 3-Dimensional Form**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces design elements and principles as they apply to 3-dimensional space and form; theory and practice. Includes projects in various media: plaster, paper, wood, and metal. Fulfills one-half the year of design requirement for all art majors. Prerequisite for courses in sculpture and recommended for related 3-dimensional disciplines.  
*Transfer Credit*: Transfers to CSU, UC.

**ART 7A**  
**Ceramics–Hand Building**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides beginning level instruction in clay processes covering hand-building methods only, glazing, and firing procedures. Explores creative design and technical problem-solving.  
*Transfer Credit*: Transfers to CSU, UC.

**ART 7B**  
**Ceramics–Wheel Forming**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: ART 7A.  
Recommended Preparation: ART 5; Eligibility for ENGL 100 and READ 100.  
Provides beginning level instruction in clay processes covering wheel throwing methods only, glazing, decorating, and firing procedures. Explores creative design and technical problem-solving.  
*Transfer Credit*: Transfers to CSU, UC.

**ART 8A**  
**Small Scale Metal/Jewelry**  
3 units; 2 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: ART 4 or ART 5; Eligibility for ENGL 100 and READ 100.  
A basic course covering processes used in fabricating nonferrous metals. No casting. Attention paid to design, use of tools, supply sources, as well as development of technical skills.  
*Transfer Credit*: Transfers to CSU.
ART 8B
Small Scale Metal/Jewelry
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 8A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Course involves expanded use of fabrication, may include introduction
to lost wax casting. Emphasis on individual solutions to posed problems.
Transfer Credit: Transfers to CSU.

ART 21
Textile Surface Design
1-3 units; 0.67 hour Lecture and 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the creation of wall pieces and fabric designs through trans-
forming, dyeing and manipulating fibers and fabrics. Includes textile dye-
ing, printing, painting, stitching, assembling and embellishing. Teaches
analysis of contemporary and historical art textiles.
Transfer Credit: Transfers to CSU.

ART 23
Weaving
1-3 units; 0.67 hour Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores the ancient techniques of tapestry weaving and fosters the
creation of personal projects. Teaches basics of off loom and loom weav-
ing as an art form and for making functional objects. Teaches construc-
tion of simple looms, spinning and dyeing. Surveys historical textiles and
their relationship to the present.
Transfer Credit: Transfers to CSU.

ART 24
Fiber Arts: Textile, Fiber, Paper
1-3 units; 0.67 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents general topics in the fiber arts area such as paper making,
fabric dyeing, bookbinding, and related fiber arts. Emphasizes individual
design. Explores contemporary and historical fiber arts, their design and
processes.
Transfer Credit: Transfers to CSU.

ART 25A
Woodworking/Furniture Design
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: ART 2A and ART 5; Eligibility for ENGL 100
and READ 100.
Introduces the practice and art of furniture making, including explor-
ing the characteristics of wood as a material and use of woodworking
tools. Emphasizes appropriate joinery techniques and designing of furni-
ture concepts.
Transfer Credit: Transfers to CSU.

ART 25B
Intermediate Woodworking/Furniture Design
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 25A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Builds on concepts, practices, and art of furniture making covered in
ART25A. Emphasizes explorations in mixed media and alternative mate-
rials in furniture making. Students will engage in more advanced design
concepts (ergonomics) and woodworking techniques.
Transfer Credit: Transfers to CSU.

ART 27
Graphic Design
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: DM 1 and ART 4; Eligibility for ENGL 100
and READ 100.
Teaches the basic skills and concepts of graphic design. Includes the
process of the development of the idea to the production techniques
using computer software. Discusses the history of traditional methods.
Emphasizes both art form and communication.
Transfer Credit: Transfers to CSU.

ART 28
Lettering/Typography
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces lettering techniques and typographic designs and use.
Covers both traditional methods and contemporary applications.
Includes a study of calligraphy from its beginnings in Ancient Rome to
modern commercial use, and typography from moveable metal type to
digital computer information.
Transfer Credit: Transfers to CSU.

ART 31A
Painting
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 2A and ART 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the practice and theory of painting with emphasis on individ-
uality in painting techniques. Explores experimental methods and
process for visual expression.
Transfer Credit: Transfers to CSU, UC.

ART 31B
Painting
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 31A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues the study of theory and practice of painting from ART 31A
with emphasis on individual projects.
Transfer Credit: Transfers to CSU, UC.
ART 32
Printmaking: Etching and Intaglio
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 2A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches intaglio: the process of making multiple images of original designs or drawings on paper from etched metal plates.
Transfer Credit: Transfers to CSU, UC.

ART 33
Screen Printing
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces techniques of silk screen printing including stenciling, printing, care of prints, papers and proper studio use.
Transfer Credit: Transfers to CSU, UC.

ART 34A
Sculpture: Direct Processes
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 5 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces beginning level materials and processes in sculpture.
Transfer Credit: Transfers to CSU, UC.

ART 34B
Sculpture: Direct Processes
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 34A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues the study of materials and processes from ART 34A with an increased use of a wide variety of materials, which can be sculpted through direct processes. Emphasizes the application of concepts and presentation.
Transfer Credit: Transfers to CSU, UC.

ART 35
Sculpture: Casting
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 34A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents intermediate level bronze casting for sculptural purposes, utilizing lost wax method and rigid investments. Includes patination and presentation.
Transfer Credit: Transfers to CSU.

ART 36
Sculpture: Moldmaking
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 34A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces moldmaking with an emphasis on constructing armatures, bas-relief, waste, piece and flexible mold types using suitable materials in both positive and negative mode. Presentation of finished sculpture is included as part of the course.
Transfer Credit: Transfers to CSU, UC.

ART 37A
Watercolor
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents painting with watercolor, using both transparent and gouache. Includes studio and outside landscapes, still life studies, abstract, and nonobjective problems.
Transfer Credit: Transfers to CSU, UC.

ART 37B
Watercolor
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 3 times.
Prerequisite: ART 37A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues content from ART 37A with emphasis on the landscape and on experimental and individual problems. Further explores watercolor, opaque water base media, polyvinyl and acrylic resins.
Transfer Credit: Transfers to CSU, UC.

ART 38
Metalsmithing
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 8A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores direct processes such as raising, sinking, die forming and forging. Tool usage and design are important aspects of this class.
Transfer Credit: Transfers to CSU: This course transfers to UC if taken before F02.

ART 40A–Z
STUDIES IN STUDIO ART
1-3 units; 0.67 hour Lecture, 1.33 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Investigates special areas of interest in Visual Arts. The special area (i.e. drawing, painting, sculpture, etc.) will be announced and described in the Schedule of Classes.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.
ART 45
Lithography
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 2A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the making of multiple prints from original hand-drawn images on stone or metal plates using the lithography process.
Transfer Credit: Transfers to CSU, UC.

ART 46
Artists’ Books
1-3 units; 0.67 hour Lecture, 1.33 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches construction of artists’ books. May include the following structures: folded, stabb, sewn, sculptural, boxes and portfolios. Includes paste papers and marbled papers and use of transfers, collage, prints and mixed media.
Transfer Credit: Transfers to CSU, UC.

ART 50L
Gallery Viewing Lab
0.5 unit; 1 Hour Directed Study
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A required laboratory class designed to encourage students to develop skills in gallery art viewing and critical analysis, supplemented by video tape viewing and guest lectures.
Transfer Credit: Transfers to CSU.

ART 71
Intermediate Ceramics Process
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 7A and ART 7B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an opportunity to apply knowledge and experience in ceramics to personal expression. Special areas (methods/materials/ideas) will be covered. Emphasis on personal interpretation, design, craftsmanship and presentation. Critical assessment of projects required.
Transfer Credit: Transfers to CSU, UC.

ART 73
Intermediate Intaglio Prints
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ART 2A and ART 32.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Investigates etching and intaglio techniques in the creation of original fine art prints.
Transfer Credit: Transfers to CSU, UC.

ASIAN STUDIES
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information http://www.cabrillo.edu/programs

Information for Asian Studies Majors
Asian Studies is an interdisciplinary major which allows students to focus on a particular area of interest in Asian Studies while gaining an overall knowledge of the area. With increasing globalization, Asia’s political, economic, and social roles have become increasingly important to the world and to the United States. In the United States our knowledge of the area lags far behind our need for understanding. Not only is there a need for greater knowledge of the Asian in our contemporary world, but also a better acquaintance with the region’s century old traditions. These traditions give us a fresh perspective on the diversity and genius of human achievement and are indispensable keys to understanding modern China, Japan, and the entire Asian region. This major is will be particularly valuable to those who wish to pursue careers in International Business and/or International Politics. California, living on the Pacific Rim, makes knowledge of Asia an area imperative study for those who want to be successful in business and international relations.

Students studying Asian art, music and/or literature will also find this to be a valuable major for gaining the historical and political knowledge necessary to pursue their areas of interest. UC Berkeley, UCLA, UC Davis, and San Jose State University all offer programs in Asian Studies.

MODEL PROGRAM FOR ASIAN STUDIES
The following model program fulfills requirements for the A.A. Degree in Asian Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a Counselor for advisement for transfer to any four-year institution.

Core Courses

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Prospective Asian Studies majors are encouraged to consult a Human Arts and Social Sciences instructor regarding recommended elective courses.

**Associate of Arts Degree in Asian Studies**

General Education ............................................. 30  
Asian Studies Core Courses .............................. 8  
Approved Electives ........................................ 12  
Other Electives (any course numbered 1-99) ....... 10  
Total for A.A. Degree in Asian Studies ............... 60

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**ASTRONOMY**

**Natural and Applied Sciences Division**

Wanda Garner, Division Dean  
Division Office, Room 701  
Rick Nolthenius, Program Contact, (831) 479-6506  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6328 for more information  
http://www.cabrillo.edu/programs

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**Information for Astronomy Majors**

The major in astronomy provides a study of the universe at large and the physical processes that govern it. Astronomy is the oldest science and uses many of the tools of modern technology. A B.S. Degree qualifies one to work at a planetarium, teach at the high school level, assist at an observatory, and work in positions requiring a general technical knowledge. An M.S. Degree broadens the opportunities to include community college instructor, major observatory telescope operator, some space science positions, and many more positions in technical fields.

A Ph.D. Degree qualifies one to do sponsored research, either theoretical or observational, at a major observatory or university. This advanced degree also opens up opportunities to work as an astronaut, space engineer, space scientist, and scientific computer programmer.

University level astronomy curricula generally stress very strong initial preparation in mathematics, physics and computer programming. Many recommend that those planning on an advanced degree obtain their B.S. in physics or mathematics. While most astronomy courses are taken at the upper division or graduate level, students will find lower division astronomy courses helpful in exploring the major. The terms “astronomy” and “astrophysics” are interchangeable. Transfer students must also complete the admission and general education requirements of the intended transfer institution.

High School Preparation: Four years of college preparatory mathematics and one year of physics. Cabrillo offers courses which can substitute for this preparation; however, the major will then require more than two years to complete.

**MODEL PROGRAM FOR ASTRONOMY**

The following model program fulfills requirements for the A.S. Degree in Astronomy at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

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**Astronomy Courses**

**ASTRO 3**

**Solar System Astronomy**

3 units; 3 hours Lecture  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Presents a survey of the sun, planets, asteroids, comets, and the growing list of new solar systems around other stars for non-science majors. Additional topics include principles of scientific reasoning, applications to the structure and evolution of planetary systems, and methods astronomers use to discover and study other solar systems.  
Transfer Credit: Transfers to CSU, UC.

**ASTRO 4**

**Stars, Galaxies, and the Origin of the Universe**

3 units; 3 hours Lecture  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Surveys the lives of stars and galaxies, and the relationship of life to the origin of universes, for non-science majors. Describes how astronomers use science to arrive at our current ideas on the evolution of stars and galaxies. Investigates how the nature of life relates to the origin of our universe and possible parallel universes. Includes optional star party at Cabrillo Observatory.  
Transfer Credit: Transfers to CSU, UC.
ASTRO 8A
Observational Astronomy
1 unit; 1 hour Lecture, 2 hours Laboratory
Prerequisite: MATH 154.
Hybrid Requisite: Completion of concurrent enrollment ASTRO 3 or ASTRO 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Involves observatory lab projects on stars, planets, the moon, galaxies, and in-class labs and demos on cloudy nights. Sometimes offered as a field course involving camping at dark-sky locations.
Transfer Credit: Transfers to CSU, UC.

ASTRO 9A
Astrophotography
1 unit; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers photographic theory and practice at Cabrillo Observatory using telescopes, cameras, and dark room to develop, print, and mount photographs taken both on film and digitally. Clear nights usually spent at Cabrillo Observatory, cloudy nights in the photo lab. Students choose from a variety of projects and experiments. Includes optional weekend camping trip for deep-sky work.
Transfer Credit: Transfers to CSU.

ASTRO 9B
Astrophotography
1 unit; 1 hour Lecture, 2 hours Laboratory
Prerequisite: ASTRO 9A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Similar to ASTRO 9A, but includes more advanced projects as well as prime focus photography, advanced techniques, and opportunities for digital imaging and processing.
Transfer Credit: Transfers to CSU.

ASTRO 9C
Astrophotography
1 unit; 1 hour Lecture, 2 hours Laboratory
Prerequisite: ASTRO 9B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Similar to ASTRO 9A and 9B but includes more creative and advanced projects: experimental testing, advanced composition, CCD imaging and digital processing. Includes weekend camping trip for dark-sky work.
Transfer Credit: Transfers to CSU.

ASTRO 27
Field Astronomy at the Pinnacles
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Corequisite: GEOL 27.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An intensive one weekend field lecture class in general astronomy, using direct visual and telescope observations in explaining planetary geology, solar system, star and galaxy formation, and evolution, and the origin of the universe. Includes car-camping at Pinnacles National Monument.
Transfer Credit: Transfers to CSU.

ASTRO 28A–Z
Special Topics in Field Astronomy
1 unit; 0.82 hour Lecture, 0.5 hour Laboratory
Repeatability: May be taken 4 times. Individual sections may be taken once.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A weekend field lecture/lab course of descriptive astronomy in dark sky locations in park lands and camping areas. Emphasis on direct observations to explore how the universe works. Car camping is required. Similar to ASTRO 27 but each section is designed around a unique astronomical event and/or location: e.g. meteor shower, lunar occultation, professional observatory tour, comet appearance.
Transfer Credit: Transfers to CSU.

ASTRO 30
Advanced Field Astronomy
2 units; 1.65 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents an in-depth field course including evening observing projects, daytime geology excursions, and campfire lectures conducted at a remote dark-sky location. Involves camping on either two weekends or over a 5-day period. Lectures on planetary geology, solar studies, and survey astronomy. Evening telescope observing sessions. Each night will focus on one branch of astronomy. Car-camping required.
Transfer Credit: Transfers to CSU.

ATHLETICS
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Dale Murray, Athletic Director, (831) 479-6149
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Note: For physical education courses see PHYSICAL EDUCATION

Athletics Courses
UC will accept a total of 4 units of PE activity courses and a total of 8 units of sports theory courses (ATH 16-17-18-19).
To enroll in Athletics 15, a student should be able to demonstrate the advanced level skills necessary for safe participation in the activity. To compete, students must meet state eligibility requirements.
ATH 10
Athletic Conditioning
0.5-2 units; 1 Hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides the opportunity for students to cross train and to improve fitness levels for intercollegiate competition. Functional training, core training, plyometrics, and strength training are emphasized to reduce chances of injury and to improve performance levels during the competitive season.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE Activity courses combined: maximum credit-4 units.

ATH 11
Football Conditioning
0.5-3 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in upper and lower body power training.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.

ATH 15C
Intercollegiate Athletics-Football
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Corequisite: ATH 16 or ATH 17.
Recommended Preparation: ATH 15CC; Eligibility for ENGL 100 and READ 100.
For students interested in intercollegiate competition in football. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.

ATH 15CC
Pre-Season Intercollegiate Football
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to students interested in intercollegiate football in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.

ATH 15D
Intercollegiate Athletics-Soccer: Men
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15DD; Eligibility for ENGL 100 and READ 100.
For men interested in intercollegiate competition in soccer. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.

ATH 15DD
Pre-Season Intercollegiate Soccer: Men
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to men interested in intercollegiate soccer in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.

ATH 15E
Intercollegiate Athletics-Soccer: Women
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15EE; Eligibility for ENGL 100 and READ 100.
For women interested in intercollegiate competition in soccer. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.

ATH 15EE
Pre-Season Intercollegiate Soccer: Women
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate soccer in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.

ATH 15F
Intercollegiate Athletics-Water Polo: Women
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15FF; Eligibility for ENGL 100 and READ 100.
For women interested in intercollegiate competition in water polo. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.

ATH 15FF
Pre-Season Intercollegiate Water Polo: Women
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate water polo in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit-4 units.
ATH 15G
Intercollegiate Athletics-Volleyball: Women
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15GG; Eligibility for ENGL 100 and READ 100.
For women interested in intercollegiate competition in volleyball. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15GG
Pre-Season Intercollegiate Volleyball: Women
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate volleyball in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15H
Intercollegiate Athletics-Water Polo: Men
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15HH; Eligibility for ENGL 100 and READ 100.
For men interested in intercollegiate competition in water polo. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15HH
Pre-Season Intercollegiate Water Polo: Men
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to men interested in intercollegiate water polo in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15I
Intercollegiate Athletics-Basketball: Men
1-2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Corequisite: ATH 18 in fall semester.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
For men interested in intercollegiate competition in basketball. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15J
Intercollegiate Athletics-Basketball: Women
1-2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Corequisite: ATH 19 in fall semester.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
For women interested in intercollegiate competition in basketball. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15K
Intercollegiate Athletics-Baseball
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15KK; Eligibility for ENGL 100 and READ 100.
For students interested in intercollegiate competition in baseball. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15KK
Pre-Season Intercollegiate Baseball
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to students interested in intercollegiate baseball in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15L
Intercollegiate Athletics-Golf
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15LL; Eligibility for ENGL 100 and READ 100.
For students interested in intercollegiate competition in golf. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15LL
Pre-Season Intercollegiate Golf
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to students interested in intercollegiate golf in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.
ATH 15M
Intercollegiate Athletics-Softball
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15MM; Eligibility for ENGL 100 and READ 100.
  For students interested in intercollegiate competition in softball. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15MM
Pre-Season Intercollegiate Softball
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
  Presents methods to improve fitness, strength, and flexibility to minimize injury potential to students interested in intercollegiate softball in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15N
Intercollegiate Athletics-Swimming and Diving: Men
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15NN; Eligibility for ENGL 100 and READ 100.
  For men interested in intercollegiate competition in swimming and diving. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15NN
Pre-Season Intercollegiate Swimming/Diving: Men
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
  Presents methods to improve fitness, strength, and flexibility to minimize injury potential to men interested in intercollegiate swimming or diving in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15P
Intercollegiate Athletics-Swimming and Diving: Women
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15PP; Eligibility for ENGL 100 and READ 100.
  For women interested in intercollegiate competition in swimming and diving. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15PP
Pre-Season Intercollegiate Swimming/Diving: Women
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
  Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate swimming or diving in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15Q
Intercollegiate Athletics-Tennis: Men
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15QQ; Eligibility for ENGL 100 and READ 100.
  For men interested in intercollegiate competition in tennis. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15QQ
Pre-Season Intercollegiate Tennis: Men
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
  Presents methods to improve fitness, strength, and flexibility to minimize injury potential to men interested in intercollegiate tennis in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15R
Intercollegiate Athletics-Tennis: Women
2 units; 10 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: ATH 15RR; Eligibility for ENGL 100 and READ 100.
  For women interested in intercollegiate competition in tennis. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15RR
Pre-Season Intercollegiate Tennis: Women
0.5-1.5 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
  Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate tennis in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.
ATH 16
Football Theory and Practice: Offense
1-2 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Present the theory and practice of football-defense, including explanation, organization, and development of offensive skills and strategies, plus the kicking game. This course may be offered in the summer only for 2 units; in the fall for 1 unit. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE Theory courses combined; maximum credit–8 units.

ATH 17
Football Theory and Practice: Defense
1-2 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Present the theory and practice of football-defense, including explanation, organization, and development of defensive skills and strategies, plus the kicking game. This course may be offered in the summer only for 2 units; in the fall for 1 unit. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE Theory courses combined; maximum credit–8 units.

ATH 18
Basketball Theory-Men
1 unit; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Present the theory and practice of basketball offensive and defensive theories, transitional techniques, fundamentals, and special situations. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE Theory courses combined; maximum credit-8 units.

ATH 19
Basketball Theory-Women
1 unit; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Present the theory and practice of basketball offensive and defensive theories, transitional techniques, fundamentals, and special situations. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE Theory courses combined; maximum credit-8 units.

BILINGUAL/BICULTURAL STUDIES
Business, English, and Language Arts Division
James Weckler, Division Dean
H. Jay Siskin, Program Chair, (831) 477-3207
Division Office-Room 501
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Information for Bilingual/Bicultural Studies Majors
Bilingual/Bicultural Studies (BBS) is an interdisciplinary program that adds depth to many careers in the areas of second language proficiency and cross-cultural competency. It is valuable to those planning to enter the field of bilingual/cross-cultural education and also enhances the overall preparation of students planning careers or pursuing degrees in a profession or course of study in which bilingual and/or cross-cultural competency is desirable.

For the BBS core requirement, students take BBS 32 and SPAN 1-4 or SPAN 16 and 17 plus two other courses from SPAN 3-30. Students may also meet the language requirement through a skills assessment. Students fulfilling the language requirement either partially or completely through equivalency may substitute classes from the list of approved electives for the Spanish courses. In addition to BBS 32 and the Spanish courses, students take 1-5 units of BBS approved electives to complete at least 20 units.

The program listed below is a pattern of courses leading to an Associate in Arts Degree only. Students who plan to transfer should select as many electives as possible that meet the lower division requirements of the major they plan to pursue.

MODEL PROGRAM FOR BILINGUAL/BICULTURAL STUDIES
The following program fulfills requirements for the A.A. Degree in Bilingual/Bicultural Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>BBS 32</td>
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<tr>
<td>SPAN 1-4</td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>SPAN 16-17</td>
<td></td>
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<td>plus two courses from the following:</td>
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</tr>
<tr>
<td>SPAN 3</td>
<td>4</td>
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<tr>
<td>SPAN 4</td>
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<td>SPAN 5A-B</td>
<td>3-6</td>
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<tr>
<td>SPAN 6A-B</td>
<td>3-6</td>
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<tr>
<td>SPAN 10A</td>
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<td>SPAN 30B</td>
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<td>SPAN 50L</td>
<td>1-4</td>
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Issues of Linguistic and Cultural Diversity in Education, History, Politics
Beginning-Intermediate Spanish
Elementary Spanish for Spanish Speakers
Intermediate Spanish
Intermediate Spanish
Advanced Grammar and Composition
Advanced Spanish through Film
Intermed. Spanish Conversation
Advanced Spanish Conversation
Advanced Spanish through Literature
Mexican Civilization and Culture
Language Lab
### Approved Electives

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>ENGL 39</td>
<td>Chicano Literature</td>
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</tr>
<tr>
<td>HIST 16C</td>
<td>History of Mexico</td>
<td>3</td>
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<tr>
<td>HIST 21A/21AH</td>
<td>Chicano History to 1865</td>
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</tr>
<tr>
<td>HIST 21B/21BH</td>
<td>Chicano History since 1865</td>
<td>3</td>
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<tr>
<td>SPAN 5-30</td>
<td>Advanced Grammar, Conversation, Literature, Special Topics in Culture</td>
<td>3-15</td>
</tr>
<tr>
<td>TA 19</td>
<td>Baile Folclórico</td>
<td>1</td>
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<tr>
<td>WS 5</td>
<td>La Mujer</td>
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<tr>
<td>WS 39C</td>
<td>Cultural Identities of Latinas</td>
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### Other Electives (from courses number 1-199)

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>AH 19</td>
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<tr>
<td>AH 52</td>
<td>Latin American Art</td>
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<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3</td>
</tr>
<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
<td>3</td>
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<tr>
<td>GEOG 2</td>
<td>Cultural Geography</td>
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<tr>
<td>WS 2 (6)</td>
<td>Introduction to Women’s Studies: Global Perspectives</td>
<td>3</td>
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### Associate in Arts Degree in Bilingual/Bicultural Studies

<table>
<thead>
<tr>
<th>General Education</th>
<th>30</th>
</tr>
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<tbody>
<tr>
<td>Bilingual/Bicultural Studies Core Courses</td>
<td>17-25</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>0-4</td>
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<tr>
<td>Other Electives (any course numbered 1-199)</td>
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<tr>
<td>Total for A.A. Degree in Bilingual/Bicultural Studies</td>
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### Bilingual/Bicultural Studies Courses

#### BBS 32

**Issues of Linguistic and Cultural Diversity in Education, History and Politics**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An introduction to the issues involving linguistic and cultural diversity in this country, including our multi-ethnic heritage, sociopolitical movements, laws concerning ethnicity and language, communication and language acquisition theory, and an in-depth look at bilingual cross-cultural education.

*Transfer Credit: Transfers to CSU, UC.*

#### BBS 33A–Z

**Special Topics: Contemporary Issues in Linguistically and Ethnically Diverse Communities**

1-4 units; 1 hour Lecture

Repeatability: May be taken 4 times.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A special study of contemporary issues in linguistically and ethnically diverse communities. Topics may include cultural competencies, studies in language and culture for the workplace, barriers that prevent incorporating diversity within mainstream cultures and social institutions, changing models of education, and other political and social issues that are common to diverse communities.

*Transfer Credit: Transfers to CSU, UC, with conditions:* Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

### BIOLOGY

**Natural and Applied Sciences Division**

Wanda Garner, Division Dean
Division Office, Room 701
Robin McFarland, Program Chair (831) 479-6445
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

#### Information for Biology Majors

(Biology, Agriculture, Physiology, Microbiology, Botany, Entomology, Zoology, Ecology, Environmental Studies, Oceanography, Nursing, Dental Hygiene, Physical Therapy, Public Health, Medical Technology, etc.)

Biology is the study of living organisms. Through the use of the scientific method, biologists seek to understand the unity and diversity of life. By understanding biological processes, we can make intelligent decisions regarding our environment, our health and our place in the ecosystem.

A solid background in the life sciences is required for many careers, including work in the allied health professions, agriculture, food service, parks and recreation, and education. Occupations with a scientific and technological component will be increasingly available in the future.

High School Preparation: Chemistry, physics, and four years of college preparatory mathematics; a foreign language is recommended.

A biology major transfers to a four-year institution to complete a bachelor's degree. Cabrillo's Biology program is articulated with the UC and CSU systems and includes the standard courses needed to complete the first two years of the major.

Verification of prerequisites will be required. Prerequisites for courses in this department are computer enforced. Students should be sure records have been entered into the Cabrillo computer system before attempting to enroll.
MODEL PROGRAM FOR BIOLOGY

The following model program fulfills requirements for the A.S./A.A. Degree in Biology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Biology Core

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<th>Course</th>
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Related Disciplines

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<td>CHEM 12A &amp; AL/12B &amp; BL</td>
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<td>Foreign Language*</td>
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<td>MATH 5ABC</td>
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<tr>
<td>PHYS 2AB</td>
<td>General Physics</td>
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<tr>
<td>PHYS 4ABC</td>
<td>Physics for Scientists and Engineers</td>
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*The student should consult the catalog of the intended transfer institution concerning the necessity or appropriateness of these courses.

Associate in Science Degree in Biology

<table>
<thead>
<tr>
<th>Course</th>
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<td>From Related Disciplines</td>
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Associate in Arts Degree in Biology

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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>General Education</td>
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<td>Biology Core</td>
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<tr>
<td>From Related Disciplines</td>
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</tr>
<tr>
<td>Total for A.A. Degree in Biology</td>
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</tr>
</tbody>
</table>

Biology Courses

BIO 1A
Cell and Molecular Biology
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1A.
Hybrid Requisite: Completion of or concurrent enrollment BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines in-depth the molecular mechanisms of cell function. Students learn how molecules interact to give cells the ability to use energy, reproduce, grow, and develop. Topics include cell structure and function, cell signaling, DNA structure and function, cell division, genetics, biotechnology, gene expression, development, and human diseases. Introduces students to interpreting and critiquing primary research articles. Laboratories focus on the use of biotechnologies in solving research questions and diseases.

Transfer Credit: Transfers to CSU, UC.

BIO 1B
Animal Diversity and Evolutionary Principles
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 152.
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces principles of evolutionary biology, and examines their application in a survey of important animal clades. The course also explores in-depth diversity in animal form and function, and considers how evolutionary history, selection, and other factors produce different solutions to problems that many animals have in common. Labs introduce students to techniques used to study evolutionary problems, and give them experience with a diversity of animal groups.

Transfer Credit: Transfers to CSU, UC.

BIO 1C
Plant Biology and Ecological Principles
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 152.
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents an in-depth exploration of diversity in photosynthetic protist, plant and fungal form and function, and introduces students to principles of ecology. Themes include how evolutionary history, selection, ecology, and other factors produce different solutions to ‘problems’ that many plants have to face. Lectures provide the informational and thematic framework for the course. Laboratories introduce the diversity of photosynthetic protists, plants, and fungi, plant biology, and techniques used to study ecological problems.

Transfer Credit: Transfers to CSU, UC.
BIO 4
Human Anatomy
4 units; 3 hours Lecture, 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: MA 70 and MA 170B; Eligibility for ENGL 100 and READ 100.
Presents the gross structure of the organ systems of the human body through lecture, demonstrations, and dissection. This course is planned for allied health students.
Transfer Credit: Transfers to CSU; UC, with limits: BIO 4 combined with BIO 5 and 13A + 13AL-maximum credit: 2 courses.

BIO 4A
Human Anatomy Coordinated Studies
1 unit; 3 hours Directed Study
Corequisite: BIO 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an enrichment program in anatomy, to be taken concurrently with BIO 4. This course is tailored to individual needs and interests as enrichment or an expansion of subject area material through laboratory or directed reading.
Transfer Credit: Transfers to CSU.

BIO 5
Human Physiology
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CHEM 2 taken at college or CHEM 30A or CHEM 32.
Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100.
Presents an exploration of the functions of the various physiological systems and their underlying chemical basis. Functions of cells, tissues, organs and systems are examined with respect to the human organism through lecture and laboratory. Designed for allied health students.
Transfer Credit: Transfers to CSU; UC, with limits: BIO 5 combined with BIO 4 and 13A + 13AL- maximum credit-2 courses.

BIO 6
Microbiology
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CHEM 2 taken at college or CHEM 30A or CHEM 32.
Corequisite: BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a survey of microbiology covering cell structure, metabolism, molecular genetics, growth and control of microorganisms, and their role in infectious disease. Emphasis is on bacterial organisms, but includes eukaryotic microbes and viruses as well.
Transfer Credit: Transfers to CSU, UC.

BIO 7
Head and Neck Anatomy and Embryology
2 units; 1.5 hours Lecture, 1.5 hours Laboratory
Prerequisite: BIO 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents the skeletal, muscular, vascular and neuroanatomy of the head and neck, emphasizing aspects useful for dental hygiene students. This course covers embryonic development of the head, neck and oral cavity with emphasis on the microscopic anatomy of the mandible, maxilla and associated structures. Portions of the course will be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BIO 10
Plants and Society
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Explores the importance of plants to human history, culture and contemporary societies, and the ecological relationships between plants, humans and the environment. Emphasizes the ways in which plants have influenced human, social, cultural and economic development.
Transfer Credit: Transfers to CSU, UC.

BIO 11A
General Biology
4 units; 3 hours Lecture, 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents an introduction to the world of living things. Topics include molecular and cell biology, genetics, biotechnology, human biology, diversity of life, evolution, and ecology. Emphasis is on current biological issues. Recommended for non-biology majors or prospective biology majors who lack previous high school biology course work.
Transfer Credit: Transfers to CSU, UC. Transfers to CSU; UC, with conditions: No credit if taken after BIO 1A, 1B or 1C.

BIO 11B
Marine Biology
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explore the local ocean habitats and marine organisms of the Monterey Bay National Marine Sanctuary. Emphasis will be on ecological relationships, adaptations of organisms to their environments, and marine conservation efforts. Several field trips will take place during the lab sessions.
Transfer Credit: Transfers to CSU, UC.

BIO 11C
Ecology
5 units; 3 hours Lecture, 6 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.
Covers factors influencing distribution, abundance, and evolution of organisms. Includes simulations, experiments, individual projects and field trips. For Biology and Environmental Studies majors.
Transfer Credit: Transfers to CSU, UC.
BIO 13A
Biology of People-Anatomy and Physiology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a survey of the integration of structure and function of the most wonderful of machines, the human body. The healthy state is emphasized but selected disease processes are covered. Intended for nonscience majors or selected pre-health professionals. Not open to students who have taken BIO 4 or BIO 5. Portions of this course may be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU; UC, with limits: BIO 13A + 13AL combined with BIO 4 and 5- maximum credit- 2 courses.

BIO 13AL
Biology of People-Anatomy & Physiology Lab
1 unit; 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in BIO 13A and BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a human anatomy and physiology laboratory course designed to accompany BIO 13A. Course involves hands-on experiences to assist in understanding the various structures and functions of the body. Includes use of models, experimentation, demonstrations, and limited dissection. Transfer Credit: Transfers to CSU; UC, with limits: BIO 13A + 13AL combined with BIO 4 and 5-maximum credit-2 courses.

BIO 13B
Biology of People-Human Genetics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduction to basic principles of inheritance and how they apply to humans. Includes Mendelian genetics, molecular genetics, medical genetics, genetics of cancer and immunity, reproductive technology, human diversity and evolution, behavioral genetics, and bioethics. Transfer Credit: Transfers to CSU, UC.

BIO 15A
Natural History of Western America
5 units; 3 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning. Transfer Credit: Transfers to CSU.

BIO 15B
Natural History of Western America
3 units; 1.5 hours Lecture, 4.5 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning. Transfer Credit: Transfers to CSU.

BIO 15AC
Natural History of Western America
7 units; 4 hours Lecture, 9 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning. Transfer Credit: Transfers to CSU.

BIO 15BCD
Natural History of Western America
6 units; 2.5 hours Lecture, 10.5 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning. Transfer Credit: Transfers to CSU.
BIO 15BD  
**Natural History of Western America**  
4 units; 1.5 hours Lecture, 7.5 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  
Involves extensive field experiences including biology of deserts, mountains, islands, and tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.  
*Transfer Credit: Transfers to CSU.*

BIO 15C  
**Natural History of Western America**  
2 units; 1 hour Lecture, 3 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.  
*Transfer Credit: Transfers to CSU.*

BIO 15CD  
**Natural History of Western America**  
3 units; 1 hour Lecture, 6 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.  
*Transfer Credit: Transfers to CSU.*

BIO 15D  
**Natural History of Western America**  
1 unit; 3 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.  
*Transfer Credit: Transfers to CSU.*

BIO 17A–Z  
**Special Topics in Biology**  
2-3 units; 2 hours Lecture or 6 hours Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Presents topics in specialized fields of biology with an emphasis on recent advances and the use of a multidisciplinary approach. Some fields include biotechnology, human biology, ecology, evolution, and organismal biology. Course content may vary with each offering.  
*Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.*

BIO 21A  
**Field Biology**  
4 units; 3 hours Lecture, 3 hours Laboratory  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  
Introduces natural history classification, distribution, ecology, and evolution of common plants and animals, emphasizing biological field methods in the study of biotic populations.  
*Transfer Credit: Transfers to CSU, UC.*

BIO 201  
**Introduction to the Microscope**  
0.5 unit; 0.5 hour Lecture  
Introduces proper use and handling of light compound and dissection microscopes. Other topics include the history and principles of microscopy and preparation of biological specimens for microscopy.

**BUSINESS**

**Business, English, and Language Arts**

James Weckler, Division Dean  
Division Office, Room 501  
Mo Hassan, Program Chair, (831) 477-3201  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6400 for more information  
http://www.cabrillo.edu/programs

**Information for Business Majors**

The Business program is designed to provide students with the theoretical and practical knowledge to prepare them for transfer to four-year institutions. The objective is to teach the fundamental principles underlying organizations, to emphasize education which will improve students’ thought processes, to provide familiarity with the basic analytical tools of business and to develop in the student the ability to use the techniques involved in analyzing and evaluating business problems and finding reasonable solutions. Attention is focused on systems and quantitative analysis, accounting, business law, economics and mathematics.
The General Business program offers three options: an Associate in Science Degree or a Certificate of Achievement, which are designed for direct employment, and an Associate in Arts Degree designed for transfer to a four-year college or university.

**MODEL PROGRAM FOR BUSINESS**

The following model program fulfills requirements for the A.A. Degree in Business at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Courses</th>
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<td>ACCT 1A Financial Accounting</td>
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<tr>
<td>ACCT 1B Managerial Accounting</td>
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<tr>
<td>BUS 5 Business Information Systems</td>
<td>4</td>
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<tr>
<td>BUS 9 Business Statistics</td>
<td>3</td>
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<tr>
<td>BUS 18 Business Law</td>
<td>4</td>
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<tr>
<td>BUS 60 International Business</td>
<td>3</td>
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<tr>
<td>BUS 20 Introduction to Business</td>
<td>3</td>
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<td>ECON 1A Introduction to Macroeconomics</td>
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<tr>
<td>ECON 1B Introduction to Microeconomics</td>
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<tr>
<td>MATH 13 Finite Mathematics</td>
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<tr>
<td>MATH 18 Business Calculus</td>
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Required of most business majors depending on university of transfer. See business adviser for specifics.

### Associate in Arts Degree in General Business

- **General Education** 30 units
- **Core Courses** 24 units
- **Electives (any course numbered 1-199)** 12 units

**Total for A.A. Degree in General Business** 60 units

### Associate in Science Degree in General Business (Transfer)

- **General Education** 21 units
- **Core Courses** 30 units
- **Electives (any course numbered 1-199)** 9 units

**Total for A.S. Degree in General Business (Occupational)** 60 units

### Business Occupational Program

<table>
<thead>
<tr>
<th>General Business Occupational Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 5 Business Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>BUS 18 Business Law</td>
<td>4</td>
</tr>
<tr>
<td>BUS 20 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 60 International Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 82 Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4 Money Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Business Occupational Core Courses** 24 units

### Approved Electives

- **ACCT 1B Managerial Accounting** 4 units
- **BUS 9 Business Statistics** 3 units
- **BUS 21 Internet Resources for Business** 1½ units
- **BUS 50 Advertising for Small Business** 3 units
- **BUS 52 Business Communications** 3 units
- **BUS 67 Human Relations and Supervision** 3 units
- **BUS 68 International Business Law** 4 units
- **BUS 71 International Marketing** 3 units
- **BUS 75 Business, Society and Government** 3 units
- **BUS 88 Starting and Operating a New Small Business** 3 units
- **BUS 89 Starting and Operating an e-Commerce Business** 3 units
- **BUS 120 Introduction to Project Management** 3 units
- **BUS 155 Business Mathematics** 3 units
- **BUS 199C Career Work Experience Education** 1-4 units

**Total for Certificate of Achievement** 27 units

### Business Courses

- **BUS 5 Business Information Systems**
  - 4 units; 3 hours Lecture, 3 hours Laboratory
  - Recommended Preparation: Eligibility for ENGL 100 and READ 100.
  - Introduces management information systems, systems design and development, data communications, data management, office automation, computer hardware and software concepts, and the use of information technology to compete in the business world. Software applications such as word processing (Word), financial spreadsheets (Excel) and database systems (Access) are introduced with appropriate business applications. May be offered in a Distance-Learning Format.
  - Transfer Credit: Transfers to CSU, UC.
BUS 9
Business Statistics
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 152 with a minimum grade of “C” or better or two years of high school algebra with grade average “C” or better, or MATH 13.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Collection and presentation of data; measures of central tendency, dispersion, probability, sampling distributions, statistical inference, regression correlation, index numbers, time series analysis, and forecasting. Excel will be introduced for some statistical tests.
Transfer Credit: Transfers to CSU; UC, with limits: BUS 9 combined with MATH 12/12H–maximum credit: 1 course.

BUS 18
Business Law
4 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the United States justice system, covering and relating criminal, civil, employment, torts and contract laws to business operations. History and nature of law, court systems, administrative agencies, crimes, cyber law, the formation and operation of contracts, corporate organization structures, ethical decisions and corporate responsibility and antitrust laws will be covered. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

BUS 20
Introduction to Business
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys business principles, problems, practices and procedures. Discussions of the nature of business, ownership, recruitment and training of personnel, labor-management relations, production and distribution of goods, competition, profits, transportation, finance, government, business relations and the interaction of business with society.
Transfer Credit: Transfers to CSU, UC.

BUS 21
Internet Resources for Business
1.5 units; 1.5 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Use of key Internet tools and resources (e.g. search engines, directories, communication tools, databases and data repositories) that support running a business and doing business research including basic information management skills, and simple Web page construction.
Transfer Credit: Transfers to CSU.

BUS 50
Advertising for Small Business
3 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches advertising and promotion for small businesses, emphasizing local and regional media. Covers media planning, budgeting, and purchasing, media creation, design and layout for television, radio, newspaper, magazine, brochures, fliers, outdoor, direct mail, Web, press releases and more as marketing tools. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BUS 52
Business Communications
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces business communication examining form, structures, and style specific to the business environment, focusing on written communication, develops the skills needed in today’s global business environment.
Transfer Credit: Transfers to CSU.

BUS 60
International Business
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This course provides general knowledge of international markets and business. The course will cover organizational and business techniques for various cultures, and markets including: cultural differences, political economy, economic integration, exporting, importing, currency exchange markets and global marketing strategy. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BUS 67
Human Relations and Resources
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies the principles of motivation, leadership fundamentals, quality improvement, communication, cultural awareness, and organizational structure as they pertain to Human Resources. Topics include motivational theories, business ethics, employee training, conflict resolution, leadership styles, and international cultural awareness.
Transfer Credit: Transfers to CSU.

BUS 68
International Business Law
4 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces international business and environmental laws and their utilization in creating and executing effective corporate strategies and international business transactions. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
BUS 71
International Marketing
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on the impact of cultural and economic elements on global trade and opportunities. The course is designed to promote an understanding of the impact a country’s culture and environment have on the marketing plan and marketing strategies.
Transfer Credit: Transfers to CSU.

BUS 75
Business, Society and Government
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the relationship dynamics between business, government, and society. Critically examining of how business ethics, global environment, social factors, and government regulations influence business decisions, consumers, and legislators. Analyzes and compares the advantages and disadvantages of socially responsible and economic business models. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BUS 82
Marketing Principles
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the application of business marketing concepts and principles. Course introduces and analyzes the marketing mix (product, price, promotion, and placement) and marketing strategies as they pertain to business operations. The course will provide general and practical knowledge on marketing research, target market analysis, consumer behavior and promotional campaigns.
Transfer Credit: Transfers to CSU.

BUS 88
Starting and Operating a New Small Business
3 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches skills to succeed in new ventures: legal steps, paperwork, start-up capital, demand, pricing, business feasibility, location, expenses, cash flow, marketing and business plan.
Transfer Credit: Transfers to CSU.

BUS 89
Starting & Operating an eCommerce Business
3 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches eCommerce for new or existing businesses planning to create a professional business presence online. Covers eCommerce, designing a Website, Web assets, technology, Web architecture, Web sales, security, online advertising, maintaining the Website, legalities and using professional software. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BUS 120
Introduction to Project Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces and provides practice with the elements of managing a project: basic tools and language of project management, the interrelationships of cost, schedule and performance, project scopes and goals, scheduling and estimating, resource assignment, risk management, organizational dynamics, and project monitoring and control.

BUS 155
Business Mathematics
3 units; 3 hours Lecture
Prerequisite: MATH 254 or basic arithmetic skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A study of mathematics as applied to business, with emphasis on notes and interest, invoices and discounts, annuities, payrolls, sales and property taxes, stocks and bonds and bank reconciliations. Required for all Accounting and Business certificates and degrees.

BUS 163
Global Business Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces basic management principles, concepts and practices. An explanation of management functions and leadership styles will be provided. Current issues and trends will be integrated throughout the course.

BUS 190A-Z
Special Topics in Globalization, Business and Society
1-4 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This course examines the impact of globalization and technological innovations on modern society, trade, and business practices. The course will also examine how a specific culture and society manifest itself in business negotiations, etiquette, and world trade. The course may focus on a specific country, region, or area to examine the impacts and manifestations.
CHEMISTRY
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Josh Blaustein, Program Chair, (831) 479-5059
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Information for Chemistry Majors
Chemistry is the study of the properties, composition and transformations of all material substances. It is often called the “central science” since it draws from mathematics and physics and forms a necessary background to the study of the earth sciences and all the biological disciplines, including the various medical professions. A chemistry major is considered excellent preparation for medical school.

As pure scientists, chemists seek to understand ever more complex substances in greater detail. As applied scientists, chemists contribute to the creation and development of thousands of the products that support our complex society. Chemistry is a profoundly experimental science and much of a student’s time will be spent in the laboratory.

A chemistry major usually transfers to a four-year institution to complete a bachelor’s degree. Many also go on to earn Masters or Ph.D.s, since advanced degrees generally lead to more rewarding careers. Cabrillo’s chemistry program is articulated with those of the UC and CSU systems and includes the standard courses needed to complete the first two years of the major.

Verification of prerequisites will be required. Prerequisites for courses in this department are computer enforced. Students should be sure their records have been entered into the Cabrillo computer system before attempting to enroll.

MODEL PROGRAM FOR CHEMISTRY
The following model program fulfills requirements for the A.S./A.A. Degree in Chemistry at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHEM 1A</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1B</td>
<td>5</td>
</tr>
<tr>
<td>+CHEM 5</td>
<td>4</td>
</tr>
<tr>
<td>++CHEM 12A</td>
<td>3</td>
</tr>
<tr>
<td>++CHEM 12AL</td>
<td>2</td>
</tr>
<tr>
<td>+CHEM 12B</td>
<td>3</td>
</tr>
<tr>
<td>+CHEM 12BL</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language*</td>
<td>8-12</td>
</tr>
<tr>
<td>MATH 5A</td>
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<tr>
<td>MATH 5B</td>
<td>4</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>4</td>
</tr>
<tr>
<td>+MATH 6</td>
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<td>MATH 7</td>
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<tr>
<td>PHYS 4A</td>
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<td>3</td>
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<tr>
<td>+PHYS 4C</td>
<td>5</td>
</tr>
<tr>
<td>++PHYS 4D</td>
<td>3</td>
</tr>
</tbody>
</table>

*The student should consult the catalog of the intended transfer institution concerning the necessity or appropriateness of these courses.

+ spring only
++ fall only

Associate in Science Degree in Chemistry
General Education ........................................... 21
Chemistry Core (20 units must be CHEM courses) ............... 39
Total for A.S. Degree in Chemistry. 60

Associate in Arts Degree in Chemistry
General Education ........................................... 30
Chemistry Core (20 units must be CHEM courses) .............. 20-24
Electives (any course numbered 1-99) ....................... 6-10
Total for A.A. Degree in Chemistry 60

Chemistry Courses

CHEM 1A
General Chemistry I
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 2 or equivalent or high school chemistry with grade “B” or better and MATH 152 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers general chemical principles including structure of matter, chemical equations and bonding, gases, solutions, periodic law, acids and bases, and chemical equilibrium.
Transfer Credit: Transfers to CSU, UC.

CHEM 1B
General Chemistry II
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers general chemical principles including organic chemistry, chemical kinetics, equilibrium, acid/base chemistry, thermochemistry, thermodynamics, electrochemistry, structure, properties of transition metals and nuclear chemistry.
Transfer Credit: Transfers to CSU, UC.
CHEM 2
Introductory Inorganic Chemistry
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 152.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers fundamental principles of inorganic chemistry. Topics include chemical calculations, classification of matter, the atomic and kinetic theories of matter and the mole concept. Prepares students for CHEM 1A.
*Transfer Credit:* Transfers to CSU; UC, with conditions: No credit if taken after CHEM 1A.

CHEM 5
Quantitative Analysis
4 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents quantitative chemical determinations using classical (gravimetric, volumetric) and instrumental (electrochemical, spectrochemical, polarimetric, chromatographic) methods; data obtained from these experiments will then be analyzed utilizing statistical methods. Designed for any scientific discipline that requires the knowledge and skills necessary to perform quantitative chemical determinations. Spring semester odd years only.
*Transfer Credit:* Transfers to CSU, UC.

CHEM 10
Concepts of Chemistry
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.
Presents an introduction to atoms, molecules, reactions, nomenclature, energy and how these explain our material world. Examines the chemical concepts most useful for understanding contemporary life—food, water, artists’ materials, nuclear reactions, the modern chemical industry and its impact on our environment.
*Transfer Credit:* Transfers to CSU; UC, with conditions: No credit for Chem 10 if taken after Chem 1A.

CHEM 12A
Organic Chemistry I
3 units; 3 hours Lecture
Prerequisite: CHEM 1B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents the lecture portion of the first semester of the year-long organic chemistry course designed for chemistry majors and pre-professional medical and biology majors. Covers stereochemistry, mechanisms, reactions and spectroscopic studies of aliphatic compounds. Fall semester only.
*Transfer Credit:* Transfers to CSU, UC.

CHEM 12BL
Organic Chemistry Laboratory II
2 units; 6 hours Laboratory
Prerequisite: CHEM 12AL.
Hybrid Requisite: Completion of or concurrent enrollment in CHEM 12B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents multi-step synthesis and identification of unknown mixtures including chemical, physical and spectroscopic studies of aliphatic and aromatic alcohols, amines, carbonyl and carbohydrates and proteins. Spring semester only.
*Transfer Credit:* Transfers to CSU, UC.

CHEM 12B
Organic Chemistry II
3 units, 3 hours Lecture
Prerequisite: CHEM 12A.
Corequisite: Completion of or concurrent enrollment in CHEM 12BL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents mechanisms, synthesis and spectroscopy of aliphatic and aromatic alcohols, amines, carbonyl and carbohydrates and proteins. Spring semester only.
*Transfer Credit:* Transfers to CSU, UC.

CHEM 30A
Inorganic Chemistry for Health Occupations
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 154.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers chemical concepts such as atomic structure, acids and bases, salts, buffers, electrolyte systems and nuclear chemistry. Appropriate for students interested in physiology and paramedical fields.
*Transfer Credit:* Transfers to CSU.

CHEM 30B
Introductory Organic Chemistry and Biochemistry for Health Occupations
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CHEM 30A or CHEM 2 or High School Chemistry.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a survey of the major classes of organic and biochemical compounds as they relate to the chemistry of life processes. Designed for students preparing for the Dental Hygiene program or a four-year nursing degree.
*Transfer Credit:* Transfers to CSU.
CHEM 32
Chemistry for the Allied Health Major
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 154.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a one semester survey of general and organic chemistry as preparation for careers in the allied health sciences. It is not appropriate for premed, dental or veterinary students nor is it intended for allied health students requiring two semesters of chemistry.
Transfer Credit: Transfers to CSU: *CHEM 32 is a one-semester alternative that satisfies the CHEM 30A/CHEM 30B two semester sequence required for students transferring to some 4-year Nursing Programs - please see a counselor or check www.assist.org for more information. CHEM 32 also satisfies the prerequisite requirement for BIO 5 and BIO 6.

CHINESE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Chinese Courses

CHIN 1
Beginning Chinese (Mandarin)
4 units; 4 hours Lecture
Corequisite: CHIN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduction to understanding, speaking, reading and writing modern Mandarin Chinese. Increasing emphasis will then be placed upon reading and writing as well as speaking and understanding.
Transfer Credit: Transfers to CSU, UC.

CHIN 2
Elementary Chinese (Mandarin)
4 units; 4 hours Lecture
Prerequisite: CHIN 1 or two years of high school Chinese, or the equivalent.
Corequisite: CHIN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Communicative approach including practice in aural comprehension. Speaking, reading and writing, including basic vocabulary and idiomatic expressions. Appreciation of Chinese culture is emphasized.
Transfer Credit: Transfers to CSU, UC.

COMMUNICATION STUDIES
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Program Chair, Dan Rothwell, (831) 479-6511
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Communication Studies Majors

In the broadest sense, Communication Studies is the study of all human communication with a focus on verbal behavior. It is not limited to the training of great orators as the leaders of society, but includes training for and analysis of communication within small and large groups, between two individuals and even communication within the individual. In all forms of communication, people talk together in order to influence the behavior of other human beings. A speaker can manage essential factors within a communication situation-such as idea selection, language use, and vocal or physical presentation-and can thus affect the behaviors which will be produced. Competent communicators also must be skilled in the critical analysis and evaluation of the messages that they hear in order to formulate effective and appropriate responses.

Topics in this field include: political debates, communicating across cultures, gender differences in communication, conflict resolution and negotiation, uses of power within groups, needs of non-native speakers, listening, and techniques for overcoming speech anxiety. A degree in Communication Studies can lead to a career (or further study) in public relations, teaching, consulting, broadcasting, law, ministry, public administration, politics, or any field in which communication skills are highly valued. For specific transfer requirements, see a counselor.

MODEL PROGRAM FOR COMMUNICATION STUDIES

The following model program fulfills requirements for the A.A. Degree in Communication Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.
Communication Studies Courses

COMM 1  
Public Speaking  
3 units; 3 hours Lecture  
Corequisite: COMM 6.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Emphasizes managing speech anxiety, organizing and outlining ideas, informing an audience, presenting arguments, and learning persuasive strategies. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU, UC.

COMM 1H  
Honors Public Speaking  
3 units; 3 hours Lecture  
Prerequisite: Honors standing.  
Corequisite: COMM 6.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Emphasizes managing speech anxiety, organizing and outlining ideas, informing an audience, presenting arguments, and learning persuasive strategies. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU, UC.

COMM 2  
Group Discussion  
3 units; 3 hours Lecture  
Corequisite: COMM 6.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Emphasis is placed on decision making and problem solving in small groups. A central theme of this course is how to structure cooperation into the group process. Additional subjects include group development, leadership, power, and conflict management.  
Transfer Credit: Transfers to CSU; UC, with limits: COMM 2 & 10 combined-maximum credit-1 course.

COMM 4  
Persuasion and Argumentation  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
An introduction to the basic elements of argumentation and a discussion and application of persuasive strategies. Some emphasis placed on debating controversial issues and learning fundamental debate techniques.  
Transfer Credit: Transfers to CSU, UC.

COMM 6  
Listening  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces the role of the listener in communication with discussion and activities focusing on listening habits, perception, and types of listening (including empathic, comprehensive, and critical-thinking skills).  
Transfer Credit: Transfers to CSU.

COMM 7  
Interpersonal Communication  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
The theory and practice of communication in personal and professional relationships. Emphasizes interpersonal competence in perception, listening, verbal and nonverbal messages and conflict management. Examines how behavior, society, and culture are interwoven to affect communication.  
Transfer Credit: Transfers to CSU, UC.

COMM 8  
Communication Activities  
1-4 units; 1 hour Lecture  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides experience in various communication activities including observation of and participation in community and/or college groups. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU.
COMM 10
Communication Process
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides experience in the three levels of communication: one-to-one, one-to-few, and one-to-many. Emphasis is placed on understanding the dynamics of communication with major emphasis on verbal and nonverbal communication, cooperation vs. competition, conflict management, interpersonal communication, and mass communication.
Transfer Credit: Transfers to CSU; UC, with limits: COMM 2 & 10 combined-maximum credit-1 course.

COMM 12
Intercultural Communication
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an understanding of the dynamics of intercultural communication with application to American culture, subcultures and different cultures of the world. Emphasis on communication perceptions, self-awareness and world views, verbal and nonverbal differences, and responses to culture shock.
Transfer Credit: Transfers to CSU, UC.

COMM 14
Health Communication
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the theory and practice of communication vital to multicultural health care settings. Covers patient-caregiver communication, the influence of health care organizations on health communication, and specific health communication needs across the life span. Students will gain practical experience in critical thinking, decision-making, and problem-solving within interpersonal, small group and public speaking/education contexts.
Transfer Credit: Transfers to CSU.

COMPUTER APPLICATIONS/BUSINESS TECHNOLOGY
Business, English, and Language Arts
James Weckler, Division Dean
Division Office, Room 501
Calais Ingel, Program Chair, (831) 477-3203
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Computer Applications/Business Technology (CABT) Occupational Program
Computer Applications/Business Technology (CABT) prepares students to use computer applications and business procedures to solve problems in contemporary business environments. CABT courses are applicable in many career ladders including vocational training and retraining, and career advancement. The CABT Department, in collaboration with Disabled Students Programs & Services (DSPS), provides specialized services for students requiring assistive technology support (Assistive Technology Lab). CABT courses, certificates, and the AS Degree are stepping-stones to a variety of professional careers in business and technology.

Skills Certificates:
- Computer Skills for the Office
- Professional Computer Applications

Certificates of Achievement:
- Administrative Support
- Computer/Business Applications

A.S. Degree:
- Computer/Business Applications

Career Opportunities
CABT courses incorporate the specialized technology skills necessary for employment in the current job market. CABT certificate and degree holders are skilled in traditional office-related occupations such as office clerk, secretary, administrative assistant, receptionist, office specialist, or customer service representative. They are well-versed in information-age technology such as Internet research, e-mail, spreadsheets, databases, and word processing. A degree in CABT can lead to careers in human resources, public administration, marketing, medical facility management, or small business administration.

CABT Core Courses
- CABT 38 Introduction to Microsoft Office 3-4
- CABT 100 Business Technology & Procedures 3
- *CABT 101 Computer Proficiency 3
- **CABT 110A, 110B Computer Keyboarding Alphabet, Numbers, and Symbols 1
  or
- CABT 111 Using Speech Recognition Software 1
- CABT 131 Microsoft Word 3
- CABT 156 Business Grammar 3
- * CABT 118 plus CABT 160 plus CABT 106 may be substituted for CABT 1 to satisfy core requirements.
- **Students who keyboard 30+ wpm with 1 error per minute (epm) or less may apply to waive CABT 110A and B and may be able to substitute from the Approved Electives list. Contact a counselor or CABT instructor for more information.

Administrative Support Core Courses
- CABT 41 Excel for Windows 3
- CABT 102 10-Key Calculator 1
- CABT 161 Creating a Simple Web Site 2
- OR
- CABT 199C Career Work Experience Education 3
**Computer/Business Applications Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 41</td>
<td>Excel for Windows</td>
<td>3</td>
</tr>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>CABT 199C</td>
<td>Career Work Experience Education</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
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**Approved Electives**

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<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 151A</td>
<td>Introduction to Accounting: Bookkeeping Concepts</td>
</tr>
<tr>
<td>ACCT 163</td>
<td>Using QuickBooks</td>
</tr>
<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Starting and Operating an eCommerce Business</td>
</tr>
<tr>
<td>BUS 155</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>CABT 101</td>
<td>Computer Proficiency</td>
</tr>
<tr>
<td>CABT 102</td>
<td>10-key Calculator</td>
</tr>
<tr>
<td>CABT 103A</td>
<td>Data Entry on the Computer</td>
</tr>
<tr>
<td>CABT 103B</td>
<td>Advanced Data Entry</td>
</tr>
<tr>
<td>CABT 106</td>
<td>Introduction to the Cabrillo Computer Labs</td>
</tr>
<tr>
<td>CABT 110C</td>
<td>Computer Keyboarding-Speed Development</td>
</tr>
<tr>
<td>CABT 111</td>
<td>Using Speech Recognition Software</td>
</tr>
<tr>
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<td>Using Microsoft Windows</td>
</tr>
<tr>
<td>CABT 143</td>
<td>Beginning MS Excel</td>
</tr>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
</tr>
<tr>
<td>CABT 160</td>
<td>Introduction to the Internet and the World Wide Web</td>
</tr>
<tr>
<td>CABT 161</td>
<td>Creating a Simple Web Site</td>
</tr>
<tr>
<td>CABT 199C</td>
<td>Career Work Experience Education</td>
</tr>
<tr>
<td>CS 1</td>
<td>Introduction to Computers and Computer Technology</td>
</tr>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
</tr>
<tr>
<td>LIBR 10</td>
<td>Information Research</td>
</tr>
<tr>
<td>LIBR 18</td>
<td>Advanced Internet Searching</td>
</tr>
<tr>
<td>MA 172</td>
<td>Medical Office Procedures</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
</tr>
<tr>
<td>COMM 6</td>
<td>Listening</td>
</tr>
</tbody>
</table>

**Skills Certificate: Computer Skills for the Office**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 101</td>
<td>Computer Proficiency</td>
</tr>
<tr>
<td>CABT 110A, 110B</td>
<td>Computer Keyboarding Alphabet, Numbers and Symbols</td>
</tr>
</tbody>
</table>

Total for Skills Certificate: 4

*Students who keyboard 30+ wpm with 1 error per minute (epm) or less may apply to waive CABT 110A and B and may be able to substitute from the Approved Electives list. Contact a counselor or CABT instructor for more information.

**Skills Certificate: Professional Computer Applications**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office</td>
</tr>
<tr>
<td>CABT 41</td>
<td>Excel for Windows</td>
</tr>
<tr>
<td>CABT 131</td>
<td>Microsoft Word</td>
</tr>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
</tr>
</tbody>
</table>

Total for Skills Certificate: 13-14

---

**Certificate of Achievement: Administrative Support**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT Core Courses</td>
<td></td>
</tr>
<tr>
<td>Administrative Support Core courses</td>
<td>4½-8</td>
</tr>
<tr>
<td>ENGL 100/1A/1AH/1AMC/1AMCH or CABT 157</td>
<td>3</td>
</tr>
</tbody>
</table>

Total for Certificate of Achievement: 23½-28

**Certificate of Achievement: Computer/Business Applications**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CABT Core Courses</td>
<td></td>
</tr>
<tr>
<td>Computer/Business Applications Core Courses</td>
<td>6½-10</td>
</tr>
<tr>
<td>ENGL 100/1A/1AH/1AMC/1AMCH or CABT 157</td>
<td>3</td>
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</tbody>
</table>

Total for Certificate of Achievement: 25½-30

**Associate in Science Degree: Computer/Business Applications**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>21</td>
</tr>
<tr>
<td>CABT Core courses</td>
<td>16-17</td>
</tr>
<tr>
<td>Computer/Business Applications Core Courses</td>
<td>9-10</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>8</td>
</tr>
<tr>
<td>Electives (any course numbered 1-199)</td>
<td>4-6</td>
</tr>
</tbody>
</table>

Total for A.S. Degree in Computer/Business Applications: 60

---

**Computer Applications/Business Technology Courses**

**CABT 38**

**Introduction to Microsoft Office**

3-4 units; 3 hours Lecture, 4 hours Laboratory

Prerequisite: CABT 106 or equivalent experience. CABT 110A.

Recommended Preparation: CABT 118 or CABT 101 or equivalent experience; Eligibility for ENGL 100 and READ 100.

Covers basic and intermediate features of the Microsoft Office suite for producing professional documents and presentations: Word (word processing), Excel (spreadsheet), PowerPoint (presentation), and Access (database). Does not cover the individual applications in the same detail as they are covered in CABT 131 (Word), CABT 41 (Excel), and CABT 142 (Access).

**Transfer Credit:** Transfers to CSU.

**CABT 41**

**Excel for Windows**

3 units; 3 hours Lecture, 4 hours Laboratory

Hybrid Requisite: Completion of or concurrent enrollment in CABT 106 or recent computer course using Windows.

Recommended Preparation: CABT 110A or basic typing skills.; Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.

Covers intermediate features of Microsoft Excel, including creating and managing spreadsheets, charts, small databases and use of Excel with the Internet. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU.
CABT 100  
**Business Technology & Procedures**
3 units; 3 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken 2 times.  
Corequisite: CABT 110A and CABT 101 or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces business procedures and office equipment with an emphasis on the integrated use of technology in a modern business environment. Topics include fundamental computer hardware and software, basic business correspondence, written and oral reports, time management, and preparing standard business forms such as purchase requisitions. Examples of technology include the use and basic troubleshooting of personal computers, printers, scanners, fax, reprographics, multi-line phones, and typewriters.

CABT 101  
**Computer Proficiency**
3 units; 3 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides computer proficiency skills for beginning computer users including the use of Word, Excel, Windows file management, e-mail, Internet research, and creating a simple web page. Includes a diverse set of computer skills used in business and college. Topics focus on fundamental computer employability standards identified by Santa Cruz County educators and employers.

CABT 102  
**10-Key Calculator**
1 unit; 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Teaches the 10-key touch system using electronic calculators to solve typical business problems and applications in a self-paced course format. Practice addition, subtraction, multiplication, division, mixed operations, percentages, and memory functions. Students may enroll through the twelfth week of instruction. May be offered in a Distance-Learning Format.

CABT 103A  
**Data Entry on Computer**
1 unit; 3 hours Laboratory  
Recommended Preparation: CABT 110B or equivalent skills.; Eligibility for ENGL 100 and READ 100.  
Teaches keyboarding alphabetic and numeric data for computer-based data entry in a hands-on, self-paced format. Covers standard operations and procedures used in typical business and government data entry applications. Students may enroll through the twelfth week of instruction. May be offered in a Distance-Learning Format.

CABT 103B  
**Advanced Data Entry**
1 unit; 3 hours Laboratory  
Prerequisite: CABT 103A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Develops speed and accuracy in keyboarding alphabetic and numeric data for computer-based data entry in a hands-on, self-paced format. Focuses on data entry for payroll systems, sales and purchase orders and accounts receivable/accounts payable. Students may enroll through the twelfth week of instruction. May be offered in a Distance-Learning Format.

CABT 106  
**Introduction to the Cabrillo Computer Labs**
0.5 unit; 0.5 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces the use of computers in the Cabrillo College computer labs for beginning computer users. Includes lab policies and procedures. Students receive hands-on experience with the Windows or Macintosh operating system, basic computer operation, the World Wide Web, and the creation, storage, and retrieval of documents.

CABT 110A  
**Computer Keyboarding-Alphabet Keys**
0.5 unit; 1.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Covers alphabetic keyboarding skills using the touch technique in a self-paced format. Enrollment is permitted through the twelfth week of instruction. May be offered in a Distance-Learning Format. Credit/no credit grading only.

CABT 110B  
**Computer Keyboarding-Numbers/Symbols**
0.5 unit; 1.5 hours Laboratory  
Prerequisite: CABT 110A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Develops speed using the alphanumeric keyboard, including numbers, symbols, and the numeric keypad in a hands-on, self-paced format. Enrollment is permitted through the twelfth week of instruction. May be offered in a Distance-Learning Format. Credit/no credit grading only.

CABT 110C  
**Computer Keyboarding-Speed Development**
0.5 unit; 1.5 hours Laboratory  
Repeatability: May be taken 4 times.  
Prerequisite: CABT 110A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Develops increasing speed and accuracy using the alphabetic keyboard in a hands-on, self-paced format. Enrollment is permitted through the twelfth week of instruction. May be offered in a Distance-Learning Format. Credit/no credit grading only.
CABT 111
Using Speech Recognition Software
1 unit; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the use of speech recognition software to control the computer using voice commands in a hands-free environment.

CABT 118
Using Microsoft Windows
1 unit; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the fundamental use of the PC and Windows operating system including file management, simple troubleshooting, running and installing programs, customizing the desktop, and using Windows accessory programs such as WordPad, Paint, and Internet Explorer.

CABT 131
Microsoft Word
3 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: CABT 110A or equivalent keyboarding experience and CABT 106 or equivalent computer experience.
Recommended Preparation: CABT 118 or CABT 101 or equivalent computer experience; Eligibility for ENGL 100 and READ 100.
Covers the basic, intermediate, and expert features of the word processing program Microsoft Word necessary to produce professional quality business documents. Topics include: creating, formatting, editing, and printing business documents (letters, memoranda, and reports). Additional features include tables, headers and footers, mail merge, macros, tables and indexes, and creating fill-in forms. Symbols, graphic elements, WordArt, borders, and charts are used to enhance documents.

CABT 143
Beginning MS Excel
0.5 unit; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An introduction to the fundamentals of Excel for Windows. Includes techniques for creating and managing effective spreadsheets.

CABT 156
Business Grammar
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reviews grammar, sentence construction, punctuation, and business vocabulary. The course emphasizes organizing and expressing information that is grammatically and mechanically correct.

CABT 157
Business and Technical Writing
3 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for CABT 156.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on techniques for writing, organizing, and editing business and technical documents. Includes audience analysis and strategies for delivering positive, negative, or persuasive information through electronic and paper communications.

CABT 160
Introduction to the Internet and the World Wide Web
1.5 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: CABT 106 (may be taken concurrently) or equivalent knowledge of Windows or the Macintosh; CABT 110A Those without typing skills are encouraged to take.; Eligibility for ENGL 100 and READ 100.
Covers the structure and function of the Internet and World Wide Web including e-mail, Internet research, uploading/downloading files and creating a simple web page with HTML.

CABT 161
Creating a Simple Web Site
2 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: CABT 101 or CABT 160 or equivalent computer and Internet skills.; Eligibility for ENGL 100 and READ 100.
Covers creation of simple web sites with easy-to-use tools; includes basic graphics, photo editing, HTML commands, uploading to the Internet, and maintaining a site. For professional web development courses, see the Digital Media program.

CABT 190A–Z
Special Topics in Computer Applications/Business Technology
0.5-3 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A course designed to investigate special selected areas of interest in computer applications and business technology not covered by regular catalog offerings. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.
CABT 280
Kurzweil 3000 for College Success
1 unit; 1 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Introduces Kurzweil 3000 software for converting text to spoken language, including use for word processing, writing development, and improvement of study and test-taking skills; appropriate for students with learning disabilities. Covers related computer technology skills such as scanning text, importing text from the internet, creating electronic notes and examining the main idea of an electronic text passage.

CABT 284L
Adaptive Word Processing Lab
1 unit; 3 hours Laboratory
Teaches students with assistive technology needs the adaptations for word processing in order to improve written language expression and essential computer skills.

CABT 285
Advanced Assistive Technology
1-2 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be repeated.
Recommended Preparation: CABT 272 or experience with assistive technology software.
Enhances computer literacy and assistive technology skills through study of specific topics in assistive technology and completion of a culminating project.

CABT 290A-Z
Special Topics in Basic Computer Applications/Business Technology
0.5-3 units; 0.5 hour Lecture, 1.5 hours Laboratory
Investigates special selected areas of interest in computer applications and business technology not covered by regular catalog offerings at the 200-level. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.

Computer and Information Systems
The Computer and Information Systems Department offers two programs: Computer Networking and System Administration (CNSA) and Computer Support Specialist (CSS). Both programs are designed to help students acquire the knowledge and skills necessary to work in computer technical support positions and prepare for industry certification exams. Additionally, the CNSA program offers an A.S. Degree which meets the transfer requirements for CSUMB, a Certificate of Achievement and skills certificates. The CSS program offers an A.S. Degree, a Certificate of Achievement, and skills certificates. Please refer to the CNSA and CSS programs for details.

COMPUTER NETWORKING AND SYSTEM ADMINISTRATION
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Rick Graziani, Program Contact, (831) 477-3533
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Computer Networking and System Administration Occupational Program
The Computer Networking and System Administration program is intended to prepare students to work in the Information Technology (IT) industry in general, and more specifically in computer networking and system administration. Courses include the underlying networking concepts and theory, administering the network infrastructure including the Cisco Systems CCNA/CCNP courses, system and network administration using UNIX/Linux and Microsoft operating systems, network security, network management, and emerging technologies. Various certificates and degree options are available, including courses that transfer to four-year universities for those students pursuing a Bachelor’s Degree.

ASSOCIATE IN SCIENCE AND CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 81</td>
<td>Networking Fundamentals and Theory (Cisco CCNA 1)</td>
</tr>
<tr>
<td>CIS 82</td>
<td>Introduction to Routing Technologies and Theory (Cisco CCNA 2)</td>
</tr>
<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
</tr>
<tr>
<td>CIS 172</td>
<td>Introduction to Operating Systems</td>
</tr>
<tr>
<td>CIS 175</td>
<td>Fundamentals of Computer Security</td>
</tr>
<tr>
<td>CIS 194</td>
<td>Microsoft Windows Client Administration</td>
</tr>
</tbody>
</table>

And one of the following courses:

| CS 11        | Introduction to Programming Concepts and Methodology, C++ | 4 |
| CS 12J       | Introduction to Programming Concepts and Methodology, Java | 4 |
| CS 19        | C++ Programming | 4 |
| CS 20J       | Java Programming | 4 |
| CIS 130      | UNIX/Linux Shell Programming | 4 |
| CIS 131      | Perl Programming in a Unix Environment | 4 |
### Associate in Science Degree in Computer Networking and System Administration

**General Education** ................................................. 21  
**Core Courses** .................................................. 25  

Either COMM 2 or COMM 10 is required and may be used to meet the A2: Critical Thinking requirement for General Education.

Completion of one or more of the Skills Certificates and Approved Electives equaling .................................................. 14  

**Total for A.S. Degree in Computer Networking and System Administration** 60

### Approved Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 132</td>
<td>Introduction to Internet Programming ..............</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

### Certificate of Achievement

- **Core Courses** .................................................. 25  
- **COMM 2 or COMM 10** .......................................... | 3     |
- **ENGL 1A/1AH/1AMC/1AMCH** .................................. | 3     |

**Total for Certificate of Achievement** 31

### COMPUTER NETWORKING AND SYSTEM ADMINISTRATION SKILLS CERTIFICATES

#### Skills Certificate: Cisco Certified Network Associate (CCNA)

Preparation for taking the Cisco Certified Network Associate exam  
- **CIS 81** Networking Fundamentals and Theory  
  (Cisco CCNA 1) ........................................ | 4     |
- **CIS 82** Introduction to Routing Technologies and Theory (Cisco CCNA 2) ................................ | 4     |
- **CIS 83** Switched Networks and WANs, Technologies and Theory (Cisco CCNA 3 & 4) ........................ | 4     |

**Total for Skills Certificate** 12

#### Skills Certificate: Cisco Certified Network Professional (CCNP)

Preparation for taking the Cisco Certified Network Professional exam  
- **CIS 185** Advanced Routing  
  (Cisco CCNP 1) ........................................ | 4     |
- **CIS 186** Implementing Secure Converged WANs  
  (Cisco CCNP 2) ........................................ | 4     |
- **CIS 187** Multilayer Switched Networks  
  (Cisco CCNP 3) ........................................ | 4     |
- **CIS 188** Optimizing Converged Cisco Networks  
  (Cisco CCNP 4) ........................................ | 4     |

**Total for Skills Certificate** 16

#### Skills Certificate: Microsoft System Administration

Preparation for taking the Microsoft Certified Professional exams  
- **CIS 81** Networking Fundamentals and Theory  
  (Cisco CCNA 1) ........................................ | 4     |
- **CIS 194** Microsoft Windows Client Administration .................................. | 3     |
- **CIS 195** Microsoft Windows Server Administration (Semester 1) .................. | 4     |
- **CIS 196** Microsoft Windows Network Administration (Semester 2) .................. | 4     |

**Total for Skills Certificate** 15

#### Skills Certificate: UNIX/Linux System Administration

Prepares the student to work with the UNIX/Linux operating system at the client and server levels.  
- **CIS 90** Introduction to UNIX/Linux ...................... | 3     |
- **CIS 191A** UNIX/Linux Installation and Configuration .............. | 2     |
- **CIS 191B** UNIX/Linux System Administration ................ | 2     |

**Take 8 units from the following courses:**  
- **CIS 130** UNIX/Linux Shell Programming .................. | 4     |
- **CIS 192A** UNIX/Linux TCP/IP Administration .......... | 2     |  
  AND  
- **CIS 192B** UNIX/Linux Network Services ................ | 2     |  
  OR  
- **CIS 193A** UNIX/Linux Host Security Basics ............ | 2     |  
  AND  
- **CIS 193B** UNIX/Linux Network Security Basics .......... | 2     |

**Total for Skills Certificate** 15
COMPUTER SUPPORT SPECIALIST
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Gerlinde Brady, Program Contact, (831) 477-5672
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Computer Support Specialist Occupational Program

The Computer Support Specialist program is designed to help students acquire the knowledge and skills necessary to work in computer technical support positions and prepare for industry certification exams. Students will be able to provide technical support, troubleshooting, training and documentation to internal and external customers. Courses include computer hardware, operating systems, common software utilities, fundamentals of networking and help desk concepts. An Associate in Science Degree, a Certificate of Achievement, and Skills Certificates are available in the areas of CompTIA A+ Preparation, and Computer Support Technician 1. The following courses are recommended for potential Computer Support Specialist majors early in their academic career to help determine their interest in pursuing the major: CS 1 and CS 1L, or CS 2.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 81 Networking Fundamentals and Theory (Cisco CCNA 1)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 90 Introduction to UNIX/Linux</td>
<td>3</td>
</tr>
<tr>
<td>CIS 103 Technical Support and Troubleshooting</td>
<td>4</td>
</tr>
<tr>
<td>CIS 170 Introduction to Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIS 195 Microsoft Windows Server Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 172 Introduction to Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>CIS 194 Microsoft Windows Client Administration</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
</tr>
</tbody>
</table>

Approved Electives

CIS 60A-ZZ Special Topics in Computer and Information Systems .................................. ½-4
CIS 82 Introduction to Routing Technologies and Theory (Cisco CCNA 2) .......................... 4
CIS 89 Data Communications ................................................. 3
CIS 99C Career Work Experience Education ..................................... 1-4
CIS 101 Opportunities in Computer Technology .................................................. 1
CIS 130 UNIX/Linux Shell Programming .............................................. 4
CIS 131 Perl Programming in a UNIX Environment ............................................ 4
CIS 132 Introduction to Internet Programming ............................................. 4
CIS 140W Fundamentals of Wireless LANs ................................................... 4
CIS 154 Introduction to Client/Server Relational Database Management Systems .......... 4
CIS 160A-ZZ Special Topics in Computer and Information Systems .......................... ½-4
CIS 164 Introduction to Managing and Securing a Web Server .................................. 3
CIS 165 Introduction to Programming Database-Driven Web Sites with ASP .................. 4
CIS 165J Introduction to Programming Database-Driven Web Sites with Java ................. 4
CIS 165PH Introduction to Programming Database-Driven Web Sites with PHP ................. 4
CIS 175 Fundamentals of Computer Security ................................................. 3
CIS 191AB UNIX/Linux Installation, Configuration and Administration ......................... 4
CIS 191A UNIX/Linux Installation and Configuration ................................................ 2
CIS 191B UNIX/Linux System Administration ................................................. 2
CIS 192AB UNIX/Linux Network Administration .................................................. 4
CIS 192A UNIX/Linux TCP/IP Administration .................................................. 2
CIS 192B UNIX/Linux Network Services ...................................................... 2
CIS 195 Microsoft Windows Server Administration (Semester 1) ................................ 4
CIS 196 Microsoft Windows Network Administration (Semester 2) ................................ 4
CIS 2 Foundations of Computer Science ...................................................... 4
CIS 11 Introduction to Programming Concepts and Methodology, C++ ............................ 4
CIS 12AL Intro to Programming for the NonMajor .................................................. 4
CIS 12J Introduction to Programming Concepts and Methodology, Java .......................... 4
CIS 19 C++ Programming ................................................................. 4
CIS 20J Java Programming ................................................................. 4
CIS 21 Introduction to Data Structures and Algorithms ........................................... 4
CS 23/MATH 23 Discrete Mathematics ......................................................... 4
CS 24 Elementary Computer Organization ...................................................... 4
CS 29 Object Oriented Programming .......................................................... 4
DM 60A Web Publishing I: (X)HTML and CSS Level 1 .............................................. 3
DM 70 Web Design Basics using Dreamweaver ..................................................... 3
DM 101 Fundamentals of Macintosh Operating Systems ............................................ 3
DM 160B Web Publishing 2: Graphic and CSS Level 2 .......................................... 3
### Associate in Science Degree in Computer Support Specialist

- **General Education** .................................................. 21
- **Core Courses** .................................................... 24-26

Either COMM 2 or COMM 10 is required and may be used to meet the A2: Critical Thinking requirement for General Education.

**Completion of one or more of the Skills Certificates and Approved Electives equaling** .......................... 10-12

**General Electives (any course numbered 1-199).** .................. 3

Total for A.S. Degree in Computer Support Specialist ........................................ 60

### Certificate of Achievement: CSS Fundamentals

- **Core Courses** .................................................... 26
- **COMM 2 or COMM 10** ........................................... 3
- **ENGL 1A/1AH/1AMC/1AMCH** .................................. 3

Total for Certificate of Achievement ........................................ 32

### COMPUTER SUPPORT SPECIALIST SKILLS CERTIFICATES

All skills certificates assume the successful completion of CS 1 and CS 1L, or CS 2, or equivalent skills.

**Skills Certificate: A+ Preparation**

Prepares the student to work with computer hardware and software, and take the comptIA A+ industry certification exam.

- **CIS 170** Introduction to Computer Hardware and Software .................................................. 4
- **CIS 195** Microsoft Windows Server Administration (Semester 1) ....................................... 4
- **CIS 172** Introduction to Operating Systems .................................................. 4
- **CIS 194** Microsoft Windows Client Administration .................................................. 3

Total for Skills Certificate ........................................ 15

**Skills Certificate: Computer Support Technician 1**

- **CIS 90** Introduction to UNIX/Linux ........................................ 3
- **CIS 172** Introduction to Operating Systems .................................................. 4
- **CIS 103** Technical Support & Troubleshooting .................................................. 4
- **CIS 170** Introduction to Computer Hardware and Software .................................................. 4
- **CIS 194** Microsoft Windows Client Administration .................................................. 3
- **COMM 6** Listening .................................................. 1

Total for Skills Certificate ........................................ 15-16

### Computer and Information Systems Courses

#### CIS 60A-ZZ

**Special Topics in Computer and Information Systems**

0.5-4 units; 0.5 hour Lecture

Repeatability: May be taken 4 times.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Investigates special selected areas of interest in computer and information systems not covered by regular catalog offerings. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.

Transfer Credit: Transfers to CSU.

#### CIS 81

**Networking Fundamentals and Theory (Cisco CCNA 1)**

4 units; 4 hours Lecture, 5 hours Laboratory

Prerequisite: CIS 172 or concurrent enrollment, or familiarity with using a command line interface such as Unix/Linux or DOS, file management, a general understanding of the function of operating systems and familiarity with using the Windows operating system. MATH 254 or equivalent knowledge.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces network technology, routing theory and router configuration including static routes, distance vector and link state routing theory, routing loop issues, VLSM, CIDR, and routing protocols such as RIPv1, RIPv2, EIGRP and Single Area OSPF. Second of four courses in the Cisco Networking Academy CCNA curriculum. Presents intermediate features of switching and WANs including VLANs, VTP, Inter-VLAN routing, STP, Frame Relay, HDLC, PPP, and ACLs. Combines semesters three and four of the Cisco Networking Academy CCNA curriculum. Hands-on experience configuring Cisco routers, additional information on routing theory and protocols beyond that of the basic Cisco Networking Academy Semester 1 course, leading to a more detailed understanding of networking.

Transfer Credit: Transfers to CSU.

#### CIS 82

**Introduction to Routing Technologies and Theory (Cisco CCNA 2)**

4 units; 4 hours Lecture, 5 hours Laboratory

Prerequisite: CIS 81.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces routing technology, routing theory and router configuration including static routes, distance vector and link state routing theory, routing loop issues, VLSM, CIDR, and routing protocols such as RIPv1, RIPv2, EIGRP and Single Area OSPF. Second of four courses in the Cisco Networking Academy CCNA curriculum. Provides hands-on experience configuring Cisco routers, additional information on routing theory and protocols beyond that of the basic Cisco Networking Academy Semester 2 course, leading to a more detailed understanding of routing. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU.

#### CIS 83

**Switched Networks and WANs (Cisco CCNA 3 & 4)**

4 units; 4 hours Lecture, 5 hours Laboratory

Prerequisite: CIS 81.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces intermediate features of switching and WANs including VLANs, VTP, Inter-VLAN routing, STP, Frame Relay, HDLC, PPP, and ACLs. Combines semesters three and four of the Cisco Networking Academy CCNA curriculum. Hands-on experience using Cisco routers and also provides additional information on routing theory and protocols beyond that of the basic Cisco Networking Academy Semester 3 and 4 courses, leading to a more detailed understanding of routing, switching and Wide Area Networks. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU.
CIS 90
Introduction to UNIX/Linux
3 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: CS 1L or CIS 172; Eligibility for ENGL 100 and READ 100.

Provides a technical overview of the UNIX/Linux operating system, including hands-on experience with commands, files, and tools. Topics include basic UNIX/Linux commands, files and directories, text editing, electronic mail, pipes and filters, X Windows, shell environments and scripting. Required for students wishing to pursue the UNIX/Linux track leading to industry certification.

Transfer Credit: Transfers to CSU.

CIS 103
Technical Support and Troubleshooting
4 units; 4 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 170 and CIS 172 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches technical support skills for those seeking employment in the computer and information systems field. Topics include training in the various means of delivering technical support and tools for gathering, organizing and disseminating technical information, and help desk organization. Prepares students to provide technical assistance and training to computer users. May be offered in a Distance-Learning Format.

CIS 130
UNIX/Linux Shell Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: CIS 90.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents an introduction to shell programming in a UNIX/Linux environment, and is designed for system administrators or technical users with little or no programming background. Topics include use of a text editor, the features of the Bash shell, variables, control structures, functions, signal handling, string manipulation, file access and basic programming style.

CIS 131
Perl Programming in a Unix Environment
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 11 or CS 12J or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An introduction to Perl programming in a Unix environment. Topics covered include the GNU Emacs text editor, variables, arrays, lists, control structures, basic input and output, regular expressions, text manipulation, functions and file access.

CIS 132
Introduction to Internet Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: MATH 154, DM 160; Eligibility for ENGL 100 and READ 100.

Presents an introduction to Internet-related programming using client-side scripting languages like JavaScript and server-side scripting languages like PHP. Covers basic programming techniques including simple data types, control structures, functions and expressions. Topics include Web-based data collection, form verification, database connectivity and XML. Previous experience with HTML and some programming knowledge is assumed.

CIS 140W
Fundamentals of Wireless LANs
4 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: CIS 81.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers the design, planning, implementing, operating and troubleshooting of Wireless LANs, including setup, 802.11(a, b, g) technologies, radio technologies, WLAN applications, WLAN security, vendor interoperability strategy and emerging wireless technologies. May be offered in a Distance-Learning Format.

CIS 154
Intro. to Client/Server Relational Database Management Systems
4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: CIS 151; Eligibility for ENGL 100 and READ 100.

Installation, use, and administration of MySQL Client/Server Relational Database Management System, including the design, creation, and administration of enterprise databases, along with performance tuning, security and disaster recovery. Additional topics include: SQL (Structured Query Language), data types, functions, and normalization. A brief introduction to server-level programming and language interfaces for developing database-driven web sites, with an emphasis on PHP. Previous experience in desktop or other database software is strongly advised.

CIS 160A-Z
Special Topics in Computer and Information Systems
0.5-4 units; 0.5 hour Lecture or 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Investigates special selected areas of interest in Computer and Information Systems not covered by regular catalog offerings. The special areas will be announced, described, and given their own titles and letter designations in the Schedule of Classes.
CIS 164
Introduction to Managing and Securing a Web Server
3 units; 3 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: CIS 90.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches installation, how to configure, manage, and secure the most widely used web server in the world, Apache. Topics include: web-server basics, installation, configuration, server-side programming, log files, robots, network security, web-server security, CGI security, web-client security and secure online transactions.

CIS 165J
Introduction to Programming Database-Driven Web Sites With Java
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 12J or the equivalent.
Recommended Preparation: DM 160 or experience in the use of basic HTML; Eligibility for ENGL 100 and READ 100.
Programming database-driven, web-based application (such as an eCommerce web site) that require online data storage and retrieval and a high degree of user/web site interaction. The web programming environment used is Java accessing a MySQL database.

CIS 165PH
Introduction to Programming Database-Driven Web Sites With PHP
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: DM 160 or experience in the use of basic HTML; CIS 10 or CS 11 or CS 12J (may be taken concurrently) or the equivalent.
Recommended Preparation: CABT 142; Eligibility for ENGL 100 and READ 100.
Covers the programming of database-driven, web-based application (such as an eCommerce web site) that require online data storage and retrieval and a high degree of user/web site interaction. The web programming environment used is PHP accessing a MySQL database.

CIS 170
Introduction to Computer Hardware and Software
4 units; 4 hours Lecture, 2 hours Laboratory
Prerequisite: CS 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers installing, maintaining, and upgrading PC-type (Intel and Intel compatible) microcomputer systems. Presents the underlying technology and methodology for performing these operations. Introduces networking, PC hardware and software installation, maintenance, safety, troubleshooting, and provides an in-depth exposure to personal computer hardware and desktop operating systems. Helps prepare students to pass the CompTIA A+ industry certification.

CIS 172
Introduction to Operating Systems
4 units; 4 hours Lecture, 2 hours Laboratory
Recommended Preparation: CS 1 and CS 1L or equivalent; Eligibility for ENGL 100 and READ 100.
Provides an overview of computer operating systems such as Unix/Linux, Microsoft Windows Operating Systems, and DOS. Topics include operating system theory, system requirements, file system management, network system integration, security, regular maintenance procedures, and an introduction to emergent technologies, their language and features, through lecture and hands-on lab.

CIS 175
Fundamentals of Computer Security
3 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: CIS 172 or equivalent knowledge; Eligibility for ENGL 100 and READ 100.
Introduces the threats and vulnerabilities of computer systems, and helps prepare for security-related industry certifications such as CompTIA Security+. Topics will include intrusion detection, intrusion prevention, encryption, VPNs, authentication, and implementing security procedures. Treats security not simply as a product to be installed, but as a way of thinking about all aspects of an organization’s security needs.

CIS 185
Advanced Routing (Cisco CCNP 1)
4 units; 4 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: CIS 82 or equivalent knowledge.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides information on scalable technologies for building large and growing internetworks, including scalable routing protocols such as OSPF, EIGRP, IS-IS, and BGP, using VLSM, CIDR, and route optimization. One of four Cisco CCNP (Cisco Certified Networking Professional) courses and prepares students for the CCNP Advanced Routing exam. May be offered in a Distance-Learning Format.

CIS 186
Implementing Secure Converged WANs (Cisco CCNP 2)
4 units; 4 hours Lecture, 8 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: CIS 83 or passing the CCNA exam.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches advanced skills required to secure and enhance services in enterprise networks for teleworkers and remote sites. Topics include cable modems and Digital Subscriber Line (DSL) with Network Address Translation (NAT), Multi Protocol Label Switching (MPLS) virtual private networks (VPNs), and network security using VPNs with IPsec encryption and Internet Key Exchange (IKE) keys, Cisco IOS Firewall Feature set, Intrusion Prevention System (IPS), and Authentication, Authorization, and Accounting (AAA). This is one of four Cisco CCNP (Cisco Certified Networking Professional) courses and prepares students for the CCNP Remote Access exam. Includes both lectures and labs.
CIS 187
**Multilayer Switched Networks (Cisco CCNP 3)**
4 units; 4 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: CIS 83 or passing the CCNA exam.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on the techniques and technologies required to build campus networks using multilayer switching technologies over high speed Ethernet. Includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. One of the four courses in the CCNP (Cisco Certified Network Professional) certification curriculum. Topics: LAN design, media types, VLANs, VLAN Trunking Protocol, ISL, 802.1Q, Spanning Tree, Inter-VLAN routing, Multilayer Switching, Flow Masks, HSRP, Multicasting, IGMP, and CGMP. Designed to help prepare students for the CCNP Switching exam.

CIS 188
**Optimizing Converged Cisco Networks (Cisco CCNP 4)**
4 units; 4 hours Lecture, 8 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: CIS 83 or passing of CCNA exam or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches skills required to optimize Quality of Service (QoS) in converged networks supporting voice, wireless, and security applications. Topics include VoIP network essentials and related challenges, concepts and implementation methods for QoS, evolution of wireless LAN (WLAN) and wireless security standards, and case studies based on the Cisco Integrated Services Routers (ISR) related to the converged network topics. One of four Cisco CCNP (Cisco Certified Networking Professional) courses. Prepares students for the CCNP Cisco Optimizing Converged Cisco Networks exam. May be offered in Distance-Learning Format.

CIS 191A
**UNIX/Linux Installation and Configuration**
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 90 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches the installation and configuration of the Linux operating system on a personal computer for use as a workstation or server. Topics include the structure of the UNIX operating system, disk and file system organization, system startup and shutdown, the X Window system, software installation, and troubleshooting issues. To demonstrate these skills, students will build their own custom Linux distribution. This is the first of two courses that prepares the student for industry certification as a UNIX/Linux System Administrator.

CIS 191AB
**UNIX/Linux Installation, Configuration and Administration**
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: CIS 90 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces skills required to administer UNIX/Linux systems. Skills include installing and configuring a popular distribution, such as RedHat Linux, maintaining file and file system structures, distributing and monitoring processes, starting and stopping the system for routine maintenance and troubleshooting, rebuilding and upgrading the kernel, configuring peripheral devices such as printers and modems, backing up and restoring files, and disaster recovery. Develops skills through using both graphical and command line user interfaces, and will be demonstrated by building a custom version of Linux. Prepares students for several industry standard Linux certifications.

CIS 191B
**UNIX/Linux System Administration**
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 90 or equivalent.
Recommended Preparation: CIS 191A; Eligibility for ENGL 100 and READ 100.

Teaches the administration, monitoring, and troubleshooting of a running Linux system in a small-to-medium sized business environment. Topics include user and group management, configuring peripheral devices, file system maintenance, kernel resources, system monitoring and logging, system backup and emergency recovery procedures. This is the second of two courses that prepares the student for industry certification as a UNIX/Linux System Administrator.

CIS 192A
**UNIX/Linux TCP/IP Administration**
2 units; 2 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: CIS 81 and CIS 90.
Recommended Preparation: CIS 191A; Eligibility for ENGL 100 and READ 100.

Teaches building, monitoring and troubleshooting of a UNIX/Linux network infrastructure. Configure arp caches, subnets, routing tables, IP addresses, and firewalls to establish a variety of network topologies. Use network monitors and sniffers to analyze protocols and packet headers at the various network layers. Use such protocols as ARP, ICMP, IP, TCP, UDP, FTP, and SSH along with network utilities to troubleshoot and secure networks. This course focuses on version four (ipv4) of the Internet protocol, and prepares the student for courses in network security.
**CIS 192AB**  
**UNIX/Linux Network Administration**  
4 units; 4 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: CIS 81 and CIS 90 or equivalent.  
Recommended Preparation: CIS 191AB; Eligibility for ENGL 100 and READ 100.  
Build and monitor network infrastructures, and install, configure, and protect services on Linux TCP/IP networks. Configure arp caches, subnets, ip addresses, subnets to establish a variety of network topologies. Use various protocols and network utilities for troubleshooting and securing networks. Topics include the TCP/IP model, DHCP, DNS, NFS, SAMBA, FTP, HTTP, firewalls and various WAN technologies such as PPP and Virtual Private Networks. Readies students for Linux network administration through preparation for industry certification.

**CIS 192B**  
**UNIX/Linux Network Services**  
2 units; 2 hours Lecture, 2 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: CIS 192A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Install, configure, and manage services on UNIX/Linux TCP/IP networks. Install client-server network applications on multi-segmented, routable networks. Configure and manage these services by editing text files from the command line as well as using graphical configuration tools. Services may include DHCP, DNS, NIS, NFS, SAMBA, FTP, HTTP, and various WAN technologies such as PPP and Virtual Private Networks.

**CIS 193A**  
**UNIX/Linux Host Security Basics**  
2 units; 2 hours Lecture, 2 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: CIS 191AB or CIS 191B.  
Recommended Preparation: CIS 175; Eligibility for ENGL 100 and READ 100.  
Teaches how to defend a UNIX/Linux network environment using network sniffers, intrusion detection and firewall technologies. Covers basic network traffic filtering and analysis, denial of service attacks, honeypots, authentication, encryption, VPNs and the securing of network services.

**CIS 193AB**  
**UNIX/Linux Security Administration**  
4 units; 4 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: CIS 192AB.  
Recommended Preparation: CIS 175; Eligibility for ENGL 100 and READ 100.  
Teaches how to perform the tasks and examine the strategies of UNIX/Linux host, files, and network security management. Helps develop skills in managing firewalls, performing security audits, and detecting intrusions. Covers host-based intrusion detection, password cracking, auditing, access control, file encryption, VPNs and securing network services. Prepares for industry level certification in the area of Linux system security.
CIS 196
Microsoft Windows Network Administration
(Semester 2)
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: CIS 81 and CIS 195 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Implement, manage and troubleshoot existing Microsoft network environments. Covers network issues in a peer-to-peer environment as well as a domain environment with Active Directory. Configure, and troubleshoot the network infrastructure utilizing TCP/IP protocols, DHCP, DNS, WINS, and Routing and Remote Access Services; they will manage, secure, and troubleshoot Web, FTP, Certificate, and Terminal services and clients. Building upon the operating system features learned in CIS 194 and CIS 195, use those skills to troubleshoot and problem solve networking issues, and secure network resources. Prepares the student for one of the exams required for MCSA certification.

COMPUTER SCIENCE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Susan Nerton, Program Chair, (831) 479-6545
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Information for Computer Science Majors

The Computer Science program is intended to meet the needs of students majoring in computer science, and students from other science disciplines where computer programming is required. These disciplines include computer engineering, networking and system administration, business, bioinformatics, information systems management, economics, business and information systems, engineering, and engineering technology.

The Computer Science Program offers two degree programs, four certificates of achievement, and two skills certificates. Both the A.S./A.A. Degree programs transfer to four-year colleges and universities. Note: UC will accept a total of 6 courses from Computer Science.

One of the following courses is recommended for all potential computer science/computer engineering majors early in their academic career to help determine their interest in pursuing the major: CS 1 or CS 2 or CS 11 (C++), or CS 12J (Java).

MODEL PROGRAM FOR COMPUTER SCIENCE

The following model program fulfills requirements for the A.A./A.S. Degree in Computer Science at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Computer Science Majors

Core courses for all transfer students

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 20J</td>
<td>Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>*CS 21</td>
<td>Introduction to Data Structures and Algorithms</td>
<td>4</td>
</tr>
<tr>
<td>*CS 23/MATH 23</td>
<td>Discrete Mathematics.</td>
<td>4</td>
</tr>
<tr>
<td>MATH 5AB</td>
<td>Analytical Geometry and Calculus I, II</td>
<td>8</td>
</tr>
</tbody>
</table>

The following core courses are required for transfer for most computer science majors and transfer universities.

**CS 24 | Elementary Computer Organization | 4 |
MATH 5C | Analytic Geometry and Calculus III | 4 |
*MATH 6  | Introduction to Linear Algebra | 3 |
MATH 7  | Introduction to Differential Equations | 3 |
CHEM 1AB| General Chemistry | 10 |
OR

Physics for Scientists and Engineers | 15 |

OR

Cell and Molecular Biology | 5 |
AND

Animal Diversity and Evolutionary Principles | 5 |

*Spring only; **Fall only

Associate in Arts Degree in Computer Science

General Education | 30 |
Core Courses | 30 |
Total for A.A. Degree in Computer Science | 60 |

Associate in Science Degree in Computer Science

General Education | 21 |
Core Courses | 39 |
Total for A.S. Degree in Computer Science | 60 |

Computer Engineering Majors

Core courses for all transfer students

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 19</td>
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</tr>
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<td>CS 20J</td>
<td>Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>MATH 5ABC</td>
<td>Analytic Geometry and Calculus I, II, III</td>
<td>12</td>
</tr>
<tr>
<td>*MATH 6</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 7</td>
<td>Introduction to Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry</td>
<td>5</td>
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<tr>
<td>PHYS 4A</td>
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<td></td>
</tr>
<tr>
<td>**PHYS 4B</td>
<td>Physics for Scientists and Engineers</td>
<td>10</td>
</tr>
</tbody>
</table>

The following core courses are required for transfer for most computer engineering majors and transfer universities:

*CS 21  | Introduction to Data Structures and Algorithms | 4 |
*CS 23/MATH 23 | Discrete Mathematics. | 4 |
**CS 24 | Elementary Computer Organization | 4 |
*PHYS 4C | Physics for Scientists and Engineers | 5 |
CHEM 1B General Chemistry ........................... 5
OR
BIO 1A Cell and Molecular Biology .................. 5
AND
BIO 1B Animal Diversity and Evolutionary Principles 5
*Spring only; **Fall only

Certificate of Achievement: C++ Programming
CS 1 Introduction to Computers and
Computer Technology ................................. 3
AND
CS 1L Lab: Introduction to Computers and
Computer Technology ................................. 2
OR
CS 2 Foundations of Computer Science .......... 4
CS 11 Introduction to Programming Concepts and
Methodology, C++ ..................................... 4
OR
CIS 132 Introduction to Internet Programming ..... 4
CS 19 C++ Programming ............................... 4
MATH 154 Elementary Algebra ........................ 4
OR
MATH 4 Pre-Calculus and Trigonometry ........... 5
COMM 2 Group Discussion ............................ 3
OR
COMM 10 Communication Process ................... 3
ENGL 1A/1AH/1AMC/1AMCH College Composition 3
Total for Certificate of Achievement 22-24

Certificate of Achievement: Java Programming
CS 1 Introduction to Computers and
Computer Technology ................................. 3
AND
CS 1L Lab: Introduction to Computers and
Computer Technology ................................. 2
OR
CS 2 Foundations of Computer Science .......... 4
CS 12J Introduction to Programming Concepts and
Methodology, Java .................................... 4
OR
CIS 132 Introduction to Internet Programming ..... 4
CS 20J Java Programming ............................... 4
MATH 154 Elementary Algebra ........................ 4
OR
MATH 4 Pre-Calculus and Trigonometry ........... 5
COMM 2 Group Discussion ............................ 3
OR
COMM 10 Communication Process ................... 3
ENGL 1A/1AH/1AMC/1AMCH College Composition 3
Total for Certificate of Achievement 22-24

Certificate of Achievement: Web Programming
CS 12J Introduction to Programming Concepts and
Methodology, Java .................................... 4
OR
CS 20J Java Programming ............................... 4
CIS 131 Perl Programming in a Unix Environment . 4
CIS 132 Introduction to Internet Programming ... 4
PLUS
MATH 5A Analytic Geometry and Calculus I ........ 4
COMM 2 Group Discussion ............................ 3
OR
COMM 10 Communication Process ................... 3
ENGL 1A/1AH/1AMC/1AMCH College Composition 3
Total for Certificate of Achievement 34

Skills Certificate: Game Programming
Prepares the student to program at an intermediate level with an
emphasis on video game programming techniques.
CS 11 Introduction to Programming Concepts and
Methodology, C++ .................................... 4
OR
CS 12J Introduction to Programming Concepts and
Methodology, Java .................................... 4
CS 20J Java Programming ............................... 4
CS 12GP Game Programming in Java .................. 4
Total for Skills Certificate 12

Skills Certificate: Web Programming Fundamentals
Prepares the student to create interactive and dynamic web pages using client-side and server-side programming languages.

**CS 12J**  Introduction to Programming Concepts and Methodology, Java ................................. 4

or

**CS 20J**  Java Programming ................................. 4

**CIS 132**  Introduction to Internet Programming ....... 4

**CIS 165**  Introduction to Programming

Database-Driven Web Sites with ASP ............ 4

or

**CIS 165PH**  Introduction to Programming

Database-Driven Web Sites with PHP ............ 4

or

**CIS 165J**  Introduction to Programming

Database-Driven Web Sites with Java .......... 4

**DM 173B**  Interactive Programming using Flash ...... 3

Total for Skills Certificate ............................... 15

### Computer Science Courses

**CS 1**  
**Introduction to Computers and Computer Technology**

3 units; 3 hours Lecture, 3 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys the fields of study within computer science and computer technology with a focus on computer literacy in the 21st century. Topics covered include: hardware, software, development systems, the Internet, and networks, including PC and Macintosh. Students interested in a hands-on lab course to coincide with this class may enroll in CS 1L.

*Transfer Credit:* Transfers to CSU, UC.

**CS 1L**  
**Lab: Introduction to Computers and Computer Technology**

2 units; 2 hours Lecture, 2 hours Laboratory

Recommended Preparation: CS 1 (may be taken concurrently) and CAbT 106 or previous Cabrillo computer course or equivalent; Eligibility for ENGL 100 and READ 100.

Covers the fundamentals of information literacy and computer proficiency including the computer aided research process and essential skills in using operating systems, word processing, spreadsheets, e-mail, image manipulation, and presentation software. Instruction is conducted in a computer demonstration lab. Students may complete lab assignments in the Cabrillo Technology Center, or at home if necessary software is available.

*Transfer Credit:* Transfers to CSU, UC.

**CS 11**  
**Introduction to Programming Concepts and Methodology, C++**

4 units; 3 hours Lecture, 6 hours Laboratory

Recommended Preparation: CS 1 or CS 2 and MATH 154; Eligibility for ENGL 100 and READ 100.

Presents an introduction to computer programming using the C++ language including procedural and object-oriented design methodology along with computer mathematics. Topics include algorithmic and object-oriented decomposition, declarations, expressions, functions, selection and looping statements, recursion, simple data types, elementary sorting and searching algorithms, libraries, arrays, pointers, classes, objects, and templates. This course prepares students for CS 19.

*Transfer Credit:* Transfers to CSU, UC.

**CS 12AL**  
**Intro to Programming for the NonMajor**

4 units; 3 hours Lecture, 6 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers computer programming concepts and methodology using 3D animation software. Course is designed specifically for students who have no previous programming experience. Computer science majors are directed to take CS 11 or CS 12J as a beginning programming course. *May be offered in a Distance-Learning Format.*

*Transfer Credit:* Transfers to CSU, UC pending review.

**CS 12GP**  
**Game Programming in Java**

4 units; 3 hours Lecture, 6 hours Laboratory

Prerequisite: CS 11 or CS 12J or equivalent knowledge.

Recommended Preparation: CS 20J or equivalent knowledge; Eligibility for ENGL 100 and READ 100.

Introduces game programming using the Java programming language. Explores the algorithms, data structures and techniques for producing 2D interactive computer games. Topics include: 2D graphics, animation, sprites, sound, rule systems, and artificial intelligence in the creation of interactive games.

*Transfer Credit:* Transfers to CSU, UC.

**CS 12J**  
**Introduction to Programming Concepts and Methodology, Java**

4 units; 3 hours Lecture, 6 hours Laboratory

Recommended Preparation: CS 1 or CS 2 and MATH 154; Eligibility for ENGL 100 and READ 100.

Presents an introduction to computer programming using the Java programming language beginning with basic principles and progressing to object-oriented programs, including visual programming. Topics include: algorithms, data types, declarations, expressions, selection, repetition, methods, recursion, libraries, arrays, classes, objects, components, events, files and streams.

*Transfer Credit:* Transfers to CSU, UC.
CS 19
C++ Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 4.
Recommended Preparation: CS 11 or equivalent; or Eligibility for ENGL 100 and READ 100.

Programming, documentation, and software design methodologies using C++. It is assumed that students have been introduced to classes and objects, control structures, repetition, functions, and logical operators. There will be a brief review of functions, arrays, pointers and strings. New topics include classes, operator overloading, and inheritance. Previous programming experience strongly recommended. Students will be required to show that they meet the course prerequisites. This course prepares students for CS 21 and CS 23.

Transfer Credit: Transfers to CSU, UC.

CS 20J
Java Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 4.
Recommended Preparation: CS 12J or equivalent; Eligibility for ENGL 100 and READ 100.

Learn programming, documentation, and software-design methodologies using Java. Starting with a brief review of control structures, methods and arrays, students rapidly progress to object-oriented programs of moderate complexity. The more advanced topics include: inheritance, polymorphism, exceptions, graphics, graphical-user interfaces, files, streams, threads and dynamic data structures. This course prepares students for CS 21 and CS 24.

Transfer Credit: Transfers to CSU, UC.

CS 21
Introduction to Data Structures and Algorithms
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 19 or CS 20J and MATH 5A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides an introduction to data structures, algorithms, and software engineering techniques using the C++ or Java language. Presents the development of large programs including definition, implementation, analysis, use and reuse of abstract data types and associated algorithms. Reviews and elaborates arrays, lists, queues, stacks, sets, trees, priority queues, heaps, tables, hashing, balanced trees, graphs, recursion, searching and sorting. Offered spring only.

Transfer Credit: Transfers to CSU, UC.

CS 23
Discrete Mathematics
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 5A or equivalent.
Recommended Preparation: CS 19 or CS 20J or equivalent; Eligibility for ENGL 100 and READ 100.

Presents discrete mathematical systems including methods of proof that shape the foundations of computer science. Includes set and number theory, Boolean Algebra, deductive and inductive proof, logic, equivalence, order, and recurrence relations, combinatorics, graph and network models, circuits and circuit minimization techniques, automata, and grammars. Math majors should enroll in MATH 23 (identical to CS 23). Offered spring only.

Transfer Credit: Transfers to CSU, UC.

CS 24
Elementary Computer Organization
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 19 or CS 20J or equivalent; and MATH 5A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces organization of computer systems, machine level programming and systems software. Includes processor organization, introduction to operating systems and assembly language programming on microprocessors. Offered fall only.

Transfer Credit: Transfers to CSU, UC.

CONSTRUCTION AND ENERGY MANAGEMENT
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Chuck Mornard, Program Chair, (831) 479-6235
Aptos Counselor: (831) 479-6274
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Construction and Energy Management Occupational Program
The Construction and Energy Management program provides education in the areas of Management, Inspections and Skills (hands-on) training. Students will find employment in the broad spectrum of opportunities available in the construction industry. The program also provides continuing education, degrees, and certificates for those already employed as contractors, owner/builders, inspectors, managers, supervisors, estimators, planners and schedulers, support staff, craft workers and other areas related to construction.

Note: We strongly recommend CS 1 (Introduction to Computers and Computer Technology) and CS 1L (Lab: Introduction to Computers and Computer Technology) for all students enrolling in computer-based Construction and Energy Management courses. Please refer to the Cabrillo College Catalog descriptions of these courses to determine if you possess equivalent knowledge.
CONSTRUCTION AND ENERGY MANAGEMENT STUDIES

## Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
<td>1</td>
</tr>
<tr>
<td>CEM 154</td>
<td>Construction Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CEM 157</td>
<td>Construction Law</td>
<td>3</td>
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<tr>
<td>CEM 159</td>
<td>Construction Planning and Scheduling</td>
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<td>CEM 160</td>
<td>Construction Management</td>
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<tr>
<td>CEM 161</td>
<td>Construction Business and Related Topics</td>
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**Total Core Courses**: 22

## Approved Electives

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<tr>
<td>CEM 154A</td>
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<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
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<tr>
<td>CEM 163</td>
<td>Fundamentals of Renewable Energy Systems</td>
<td>3</td>
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<tr>
<td>CEM 164R</td>
<td>Building Fundamentals of the International Residential Code</td>
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<tr>
<td>CEM 165R</td>
<td>Electrical, Mechanical, and Plumbing Fundamentals of IRC</td>
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<tr>
<td>CEM 166</td>
<td>Fundamentals of the International Building Code I</td>
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<tr>
<td>CEM 167</td>
<td>Fundamentals of the International Building Code II</td>
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<td>CEM 168</td>
<td>Fundamentals of the Uniform Plumbing Code</td>
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<td>CEM 169</td>
<td>Fundamentals of the Uniform Mechanical Code</td>
<td>3</td>
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<tr>
<td>CEM 170</td>
<td>Foundation Layout</td>
<td>3</td>
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<tr>
<td>CEM 175A</td>
<td>Electrical Code Materials 1: Residential</td>
<td>3</td>
</tr>
<tr>
<td>CEM 175B</td>
<td>Electrical Code Materials 2: Commercial</td>
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</tr>
<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
<td>3</td>
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<tr>
<td>CEM 178A</td>
<td>Residential Construction Skills 1: “Front End”</td>
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<tr>
<td>CEM 178B</td>
<td>Residential Construction Skills 2: “Finish End”</td>
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<tr>
<td>CEM 190C</td>
<td>Enhanced Construction Skills</td>
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<tr>
<td>CEM 199C</td>
<td>Career Work Experience Education</td>
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Three units from the following: ETECH 24, 60, 61, 62, 71, or ENGR 1A, 5, 10, 45

## Associate in Science Degree in Construction and Energy Management

<table>
<thead>
<tr>
<th>Component</th>
<th>Units</th>
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<tbody>
<tr>
<td>General Education</td>
<td>21</td>
</tr>
<tr>
<td>CEM Core Courses</td>
<td>22</td>
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<tr>
<td>Approved Electives</td>
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## Certificate of Achievement:

<table>
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<tr>
<th>Component</th>
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<tbody>
<tr>
<td>CEM Core Courses</td>
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<tr>
<td>One of the following: ENGL 100/1A/1AH/1AMC/1AMCH, or CABT 157</td>
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<tr>
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## Building Inspection and Construction Codes

The Building Inspection option leads to certifications in the codes that are needed by those seeking employment as Building Inspectors. Building inspection is one of the more stable areas of construction employment. Building Inspectors are employed in both the public and private sectors.

### Building Inspection and Construction Codes Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Fundamentals of the International Building Code I</td>
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<tr>
<td>CEM 167</td>
<td>Fundamentals of the International Building Code II</td>
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</tr>
<tr>
<td>CEM 168</td>
<td>Fundamentals of the Uniform Plumbing Code</td>
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</tr>
<tr>
<td>CEM 169</td>
<td>Fundamentals of the Uniform Mechanical Code</td>
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</tr>
<tr>
<td>CEM 175A</td>
<td>Electrical Code Materials 1: Residential</td>
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</tr>
<tr>
<td>CEM 175B</td>
<td>Electrical Code Materials 2: Commercial</td>
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<td>CEM 177</td>
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<tr>
<td>CEM 178A</td>
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<tr>
<td>CEM 178B</td>
<td>Residential Construction Skills 2: “Finish End”</td>
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<tr>
<td>CEM 190C</td>
<td>Enhanced Construction Skills</td>
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<td>CEM 199C</td>
<td>Career Work Experience Education</td>
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**Total Core Courses**: 28

### Approved Electives

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
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<td>CEM 157</td>
<td>Construction Law</td>
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<td>CEM 159</td>
<td>Construction Planning and Scheduling</td>
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<td>CEM 160</td>
<td>Construction Management</td>
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<tr>
<td>CEM 161</td>
<td>Construction Business and Related Topics</td>
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<tr>
<td>CEM 163</td>
<td>Fundamentals of Renewable Energy Systems</td>
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<td>CEM 164R</td>
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<td>CEM 165R</td>
<td>Electrical, Mechanical, and Plumbing Fundamentals of IRC</td>
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<td>CEM 170</td>
<td>Foundation Layout</td>
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<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
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**Total Approved Electives**: 12

## Associate in Science Degree in Building Inspection and Construction Codes

<table>
<thead>
<tr>
<th>Component</th>
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<tbody>
<tr>
<td>General Education</td>
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<td>Building Inspection and Construction Codes Core Courses</td>
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<tr>
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## Certificate of Achievement: Building Inspection and Construction Codes

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<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
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<tr>
<td>CEM 151L</td>
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<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
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<tr>
<td>CEM 154A</td>
<td>Estimating for Construction Professionals</td>
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<tr>
<td>CEM 160</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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<tr>
<td>CEM 163</td>
<td>Fundamentals of Renewable Energy Systems</td>
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## Skills Certificates: Construction Basics

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
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<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
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<tr>
<td>CEM 160</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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<tr>
<td>CEM 163</td>
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## Skills Certificates: Construction Management

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<tbody>
<tr>
<td>CEM 154A</td>
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<td>CEM 157</td>
<td>Construction Law</td>
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<tr>
<td>CEM 160</td>
<td>Construction Management</td>
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</tr>
<tr>
<td>CEM 161</td>
<td>Construction Business and Related Topics</td>
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<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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<tr>
<td>CEM 190BR</td>
<td>Blueprint Reading for Construction Professionals</td>
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## Skills Certificates: Construction Business Management

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<tbody>
<tr>
<td>CEM 154</td>
<td>Construction Estimating</td>
<td>3</td>
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<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CEM 159</td>
<td>Construction Planning and Scheduling</td>
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<td>CEM 160</td>
<td>Construction Management</td>
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<td>CEM 162</td>
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## Skills Certificates: Construction Project Management

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<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
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<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
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<tr>
<td>CEM 160</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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<tr>
<td>CEM 168</td>
<td>Fundamentals of the Uniform Plumbing Code</td>
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## Skills Certificates: Construction Electrical Inspection and Codes

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<th>Course Title</th>
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<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
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<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
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<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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<td>CEM 175A</td>
<td>Electrical Code Materials 1: Residential</td>
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<td>Electrical Code Materials 2: Commercial</td>
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## Skills Certificates: Construction Specialty Inspection and Codes

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<tr>
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<td>Construction Fundamentals: Principles and Practices</td>
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<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
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<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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<tr>
<td>CEM 168</td>
<td>Fundamentals of the Uniform Plumbing Code</td>
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## Skills Certificates: Construction Trade

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<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
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<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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<td>CEM 155</td>
<td>Blueprint Reading</td>
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<tr>
<td>CEM 178A</td>
<td>Residential Construction Skills 1: &quot;Front End&quot;</td>
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<td>CEM 178B</td>
<td>Residential Construction Skills 2: &quot;Finish End&quot;</td>
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<td>Total</td>
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</tbody>
</table>
Skills Certificate: Construction Career Path
This skills certificate serves as a stepping stone into Cabrillo’s CEM program for high school and ROP students. Up to 4 units of CEM 190AZ credit may be obtained through articulation agreements with ROP and the high schools for construction related coursework taken at the high school level.

CEM 151
Construction Fundamentals: Principles and Practices
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Covers the sequence of events for residential construction from both an owner’s and a builder’s point of view. Topics include categories and phases of construction, planning and permitting processes, analysis of contract documents, safety, tools, equipment, material selection and use, foundations, framing, roofing, insulation, drywall, plumbing, HVAC, electrical, interior and exterior carpentry and finishes, and introductions to estimating, planning and scheduling, and project management.

CEM 151L
Construction Fundamentals: Principles and Practices Lab
1 unit; 3 hours Laboratory
Corequisite: CEM 151.
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Covers the methodology and techniques for residential construction from a skills and vocational point of view. Topics include safety, tools, equipment, materials, foundation layout, framing, sheathing and siding, roof layout, roof framing, roof sheathing, roofing, plumbing, HVAC, electrical, insulation, drywall, interior and exterior carpentry and finishes.

CEM 154
Construction Estimating
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Covers basic methods of construction estimating and cost preparation for material, labor, overhead and equipment costs and its relationship to project budgets and management. Includes the use of the CSI Division Format, cost indexes, and computer estimating techniques to prepare, organize, and track costs.

CEM 154A
Estimating for Construction Professionals
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Provides an overview of basic methods of construction estimating and cost preparation for material, labor, overhead and equipment costs and its relationship to project budgets and management. Includes the use of the CSI Division Format and cost indexes.

CEM 155
Blueprint Reading
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Teaches the analysis and interpretation of construction drawings. Topics include the alphabet of lines, symbols, plot plans, foundation plans, floor plans, elevations, sectionals, framing details, and dealing with incomplete and inaccurate drawings. New construction and remodels both residential and commercial are covered.

CEM 157
Construction Law
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Introduces complex legal principles and issues confronted in the construction profession in both the public and private sectors. Topics include insurance (workers compensation, general liability, automobile liability and builder’s risk coverage), bonds and bonding, construction documents, construction contract terms and conditions, laws, standards, practices, mechanics liens, stop notices, public agency orders, notices, claims, dispute resolution, arbitration, and litigation.

CEM 159
Construction Planning and Scheduling
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Covers project planning and scheduling fundamentals including software applications applied to the construction profession. Topics include: developing network modeling, network diagrams, Gantt charts, resources allocation and leveling, cash flow analysis, project budgeting, and project control.
CEM 159A
Planning and Scheduling for Construction Professionals
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Covers project planning and scheduling fundamentals including an overview of software applications applied to construction professions.

CEM 160
Construction Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Introduces construction management principles, practices, and associations. Topics include roles and responsibilities, delivery methods, management styles, contract types and documents, budgeting, scheduling, safety and risk management, documentation, human relations, leadership, resource allocation and leveling, project monitoring and control, close-out, measuring project success, and software applications which articulate the benefit of computer aided construction management.

CEM 161
Construction Business and Related Topics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Introduces business fundamentals, principles, practices, procedures, and topics related to construction. Topics include business ethics, organization behavior, management by objectives, planning and goal setting, safety, risk management, business/economic cycles, financing, accounting, marketing, and advertising, leadership, management styles, communication, teamwork, delegation, time management, staffing, recruitment, motivation, employee performance, rewards and discipline, conflict resolution, documentation, and information management systems.

CEM 162
Sustainable Buildings, Home Performance, and the Environment
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Introduces sustainable building resources and applications, LEEDS certification requirements, home performance concepts, California energy codes, green building, and their relationships to the environment and residential construction.

CEM 162SP
Solar Photovoltaic Design and Installation
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Introduces solar photovoltaic system requirements, design and configurations, installation techniques, and their application in residential and commercial construction. Entry-level Certification Exam from NABCEP is an option.

CEM 163
Fundamentals of Renewable Energy Systems
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Introduces renewable and alternative energy sources including grid interactive, stand-alone systems, wind, active and passive solar energy collection, site evaluation, design analysis of various systems and materials and methods of construction.

CEM 164R
Building Fundamentals of the International Residential Code
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Provides training in the structural building provisions of the International Residential Code, including concrete, masonry, and wood frame construction. Designed for architects, contractors, designers, inspectors and those seeking IRC Certification.

CEM 165R
Electrical, Mechanical, and Plumbing Fundamentals of IRC
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Provides training in the electrical, mechanical, and plumbing portions of the International Residential Code. Designed for architects, contractors, designers, inspectors and those seeking IRC Certification.

CEM 166
Fundamentals of the International Building Code I
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Provides training in the structural portions of the International Building Code, including concrete, masonry, and wood frame construction. Designed for architects, contractors, designers, inspectors and those seeking International Code Council Certification.

CEM 167
Fundamentals of the International Building Code II
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Provides training in the non-structural design portions of the International Building Code, including occupancy classification, types of construction and exiting. Designed for architects, contractors, designers, inspectors and those seeking International Code Council Certification.
CEM 168  
**Fundamentals of the Uniform Plumbing Code**  
3 units; 3 hours Lecture  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.  
Provides training in the requirements of the Uniform Plumbing Code including plumbing systems for waste, indirect and special wastes, venting, fresh water, gasses, fuels, solar, fire protection, and water heaters and is designed for contractors, architects, designers, and those seeking ICBO Certification.

CEM 169  
**Fundamentals of the Uniform Mechanical Code**  
3 units; 3 hours Lecture  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.  
Provides training in the requirements of the Uniform Mechanical Code, including mechanical systems for heating and cooling systems, combustion air, venting, ducting, refrigeration, and commercial kitchen vent hood and is designed for contractors, architects, designers, and those seeking ICBO Certification.

CEM 170  
**Foundation Layout**  
3 units; 2 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.  
Introduces foundations and concrete work fundamentals typical of residential construction including layout, forming, and reinforcement. Additional topics include inspection, pouring, and finishing of slab and stemwall structures as well as materials, tools and tool use, hardware, essential techniques for assembly taught by practical hands-on application.

CEM 175A  
**Electric Code and Materials 1: Residential**  
3 units; 3 hours Lecture  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.  
Provides training in the selection and installation of various electrical wiring systems as specified by the National Electric Code (NEC) for residential construction. Topics include conductors, cables, raceways, fittings, boxes, panels, devices, hazardous locations, special equipment and environments, high voltage wiring methods, and electrical blueprint reading and is designed for contractors, architects, designers, and those seeking certification.

CEM 175B  
**Electric Code and Materials 2: Commercial**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.  
Provides training in the selection and installation of various electrical wiring systems as specified by the National Electric Code (NEC) for commercial construction. Topics include conductors, cables, raceways, fittings, boxes, panels, devices, hazardous locations, special equipment and environments, high voltage wiring methods, and electrical blueprint reading in a commercial environment or context, and is designed for contractors, architects, designers, and those seeking certification.

CEM 177  
**Fundamentals of Residential Framing**  
3 units; 2 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.  
Introduces the student to layout and framing fundamentals typical of residential construction including floors, walls and partitions, roofs, safety, structural materials, tools and tool use, hardware, essential techniques for assembly and provides practical hands-on application.

CEM 178A  
**Residential Construction Skills 1: "Front End"**  
3 units; 2 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.  
Introduces "front end" construction: foundation layout, framing fundamentals, rough plumbing, rough HVAC, and rough electrical basics typical of residential construction. Additional topics include safety, foundations, floors, walls and partitions, roofs, fire protection systems, insulation, drywall, materials, tools and tool use, hardware, essential techniques for assembly and provides practical hands-on application.

CEM 178B  
**Residential Construction Skills 2: "Finish End"**  
3 units; 2 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.  
Introduces "finish end" construction: foundation layout, framing fundamentals, insulation, drywall, finish plumbing, finish HVAC, finish electrical, and finish carpentry basics typical of residential construction. Topics include safety, foundations, floors, walls and partitions, roofs, insulation, drywall, finish plumbing and electrical systems, painting, finish carpentry, tile, flooring, materials, tools and tool use, hardware, essential techniques for assembly and provides practical hands-on application.
CEM 190A-Z
Special Topics in Construction and Energy Management
0.5-5 units; 0.5 hour Lecture, or 1.5 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Selected topics in construction not covered by regular course offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending upon the subject matter.

COUNSELING AND GUIDANCE
Counseling Division
Division Office, Building 100
Aptos Counselor: (831) 479-6274
Watsonville Counselor: (831) 477-5134
Call (831) 479-6385 for more information
http://www.cabrillo.edu/programs

Counseling and Guidance Courses

CG 1
College Success
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Intergrates personal growth, learning techniques, academic and career success, problem solving, critical, and creative thinking. The course focuses on the following topics: self evaluation and assessment, goal setting, career decision making, educational planning, time and financial management techniques, instructor-student relationships, cultural diversity, health maintenance, stress management, campus resources, learning styles and strategies including lecture note-taking, test taking, memory and concentration. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

CG 52
College Study Skills
1-3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A course for the student who wants to learn how to take lecture and reading notes, master textbooks, manage time, concentrate, pass examinations, research term papers and other general college survival skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 52IIA
Individualized College Study Skills
1 unit; 1 hour Distance Education
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Learning how to learn is the subject of this self-paced course. The basic skills of taking notes, time management, classifying, problem solving, analysis, logical thinking, creative thinking, test taking and memory improvement are covered. The course is divided into one unit modules, and is taken through the Individualized Learning Center.
Transfer Credit: Transfers to CSU.

CG 52IIB
Individualized College Study Skills
1 unit; 1 hour Distance Education
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The basic skills of taking notes, time management, classifying, problem solving, analysis, logical thinking, creative thinking, test taking and memory improvement. This is a self-paced course, divided into one unit modules, and taken through the Individualized Learning Center.
Transfer Credit: Transfers to CSU.

CG 52IIC
Individualized College Study Skills
1 unit; 1 hour Distance Education
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The basic skills of taking notes, time management, classifying, problem solving, analysis, logical thinking, creative thinking, test taking and memory improvement. This is a self-paced course, divided into one unit modules, and taken through the Individualized Learning Center.
Transfer Credit: Transfers to CSU.

CG 54
Career Planning
1-3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A two-part class involving (1) self-analysis through discussion and tests of aptitude, interest, values and personality; (2) investigation of the world of work. Student may choose either individual or group counseling. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
CG 57
Guidance for Re-entry Men and Women
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A lecture/discussion guidance class designed to meet the needs of men and women whose formal education has been interrupted by family career responsibilities or choice. Includes educational, vocational, and individual counseling. Course open for enrollment to all students.
Transfer Credit: Transfers to CSU.

CG 58
College Success for Re-entry Men
2 units; 2 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A lecture/discussion guidance class designed to meet the needs of men whose formal education has been interrupted by family and/or career responsibilities. Includes educational, vocational, and individual counseling. Course open for enrollment to all students.
Transfer Credit: Transfers to CSU.

CG 59
College Success for Re-entry Women
2 units; 2 hours Lecture
Prerequisite: Enrollment in Re-entry Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A guidance class designed to meet the needs of the woman whose formal education has been interrupted by family and/or career responsibilities. Includes educational, vocational and personal counseling.
Transfer Credit: Transfers to CSU.

CG 60A
Introduction to Peer Counseling
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A lecture discussion class in which students learn techniques of effective peer counseling to assist a diverse student population.
Transfer Credit: Transfers to CSU.

CG 60B
Introduction to Peer Counseling
2 units; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 3 times.
Prerequisite: CG 60A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A lecture/discussion class in which students learn techniques of effective peer counseling to assist a diverse student population.
Transfer Credit: Transfers to CSU.

CG 65
Leadership Development
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A lecture/discussion class that addresses issues of leadership in student government and non-academic contexts. Course requires the application of leadership skills in and out of class. Topics include: parliamentary procedure, group leadership techniques, project management, alliance-building, and conflict management.
Transfer Credit: Transfers to CSU.

CG 99A
Take Control of Your Success
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Change ineffective behaviors in study, personal life, communication, health, finances and balancing school and family life. Practical application of theory and techniques of self-directed behavioral modification.
Transfer Credit: Transfers to CSU.

CG 99B
Work Less, Live More
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examination of the historical, cultural and economic influences on work hours. Exploration of alternative work arrangements, and personal strategies for balancing work with family and personal life. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 99C
Goal Setting
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Course will examine theories of motivation, goal setting, motivators and methods for overcoming obstacles. Students will analyze and apply internal and external techniques for goal setting and develop the skills for career and life success.
Transfer Credit: Transfers to CSU.

CG 99E
Personality Type and Learning Style
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A study of personality type and how it affects learning and teaching styles. Personality theory will be applied by students to enhance the balance of school and life responsibilities.
Transfer Credit: Transfers to CSU.
CG 107
Career and Transfer Research Activities
0.5-3 units; 1.5 hours Laboratory
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides opportunity for research in career development and/or transfer preparation. Includes research, observation and/or experience relating to career development and/or transfer preparation. Integrates self-analysis and investigation of the world of work and/or transfer options and will enhance the problem-solving, communication and critical thinking skills necessary for career and educational decision-making and success.

CG 190A–Z
Charting Your Career Path
0.5-5 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Presents selected topics in Counseling and Guidance not covered by regular course offerings. Each special topic course will be announced, described and given its own title and letter designation in the Schedule of Classes. The structure and format of the class will vary depending on the subject matter. May be offered in a Distance-Learning Format.

CG 205
Academic Survival Skills
1 unit; 1 hour Lecture
Repeatability: May be taken 4 times.
Corequisite: CG 205L Concurrent enrollment for the first semester taking CG 205.
Assists students in developing college survival skills, to include note taking, test taking, time management, and studying effectively.

CG 205L
Academic Survival Skills Lab
1-3 units; 3 hours Laboratory
Repeatability: May be taken 4 times.
Corequisite: CG 205 (not required if repeated).
Assists student to develop academic skills in a supervised study environment by applying concepts and strategies presented in CG 205.

CG 208
Job Hunting
1 unit; 1 hour Lecture
Repeatability: May be taken 2 times.
Students will identify their job skills, interests, and objectives, as well as an understanding of local job market, goal setting, and job seeking skills.

CG 211
Career Planning for Special Needs Students
1-3 units; 1 hour Lecture
Prerequisite: Eligibility for Disabled Student Programs and Services.
In-depth exploration into individual’s vocational interests, aptitude abilities, job environment and market availability for placement. A general overview of agency sources available to facilitate the individual’s needs.

CG 215
Counseling and Guidance for Students in Non-Traditional Fields
2 units; 2 hours Lecture
A guidance class for students entering non-traditional occupations. Topics include: assertive communication, apprenticeships, mentoring, study skills, self-esteem, career exploration and goal setting.

CG 280A–Z
Special Topics in Developmental Studies
1-3 units; 1 hour Lecture or 2 hours Laboratory
Recommended Preparation: Eligibility for Disabled Student Programs and Services or an acquired brain injury.
Discussion of factors affecting self-esteem techniques to raise self-esteem; application of techniques in daily life.

CG 286
Transition to College
2 units; 2 hours Lecture
Repeatability: May be repeated.
This course is designed for students who have a psychological disability and are eligible for services through Disabled Student Programs and Services. Addresses issues and concerns related to students with psychological disabilities as they affect vocational, academic and interpersonal situations occurring in a college environment.

CG 502
Supervised Guidance
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Offers drop-in and scheduled guidance regarding transfer issues, career planning, and the development of educational plans.

CULINARY ARTS AND HOSPITALITY MANAGEMENT
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Eric Carter, Program Chair, (831) 477-5012
Aptos Counselor: (831) 479-6274
Watsonville Counselor: (831) 477-5134
Call (831) 479-6348 or (831) 479-6297 for more information
http://www.cabrillo.edu/programs
Culinary Arts and Hospitality Management Occupational Program

Cabrillo College’s Culinary Arts and Hospitality Management program provides the student with the basic culinary skills in food preparation and service, advanced a la carte dining, and buffet food productions, as well as food service management training for the industry. Cabrillo College offers a basic skills certificate in cooking or catering (16 units each) and/or a Certificate of Achievement in Culinary Arts (33 units). The skills certificates are stepping stones towards a Certificate of Achievement. When a student has completed 30 units of Culinary Arts core classes and also completed 21 additional units of general education, they can then complete an A.S. Degree in Culinary Arts and Hospitality Management.

The program is located at the beautiful Sesnon House Mansion where there is a full-service restaurant and a catering facility open to the public. The students gain hands-on experience in fine dining and catering events up to 200 people. Check out the website for the Sesnon House at www.cabrillo.edu/services/sesnon.

Career Opportunities

Any dish that a trained culinarian creates can be a work of art in both taste and visual appeal. As a business, though, a graduate from Culinary Arts and Hospitality Management means employability. The California Restaurant Association (www.calrest.org) indicates that:

- California eating-and-drinking place sales are projected to rise more than any other state in the nation for the same surveying period
- In recent years consumers spent more of the money at restaurants than they did at the supermarket
- The typical restaurant owner started at the beginning of the career ladder working as a dishwasher, busser, or cook. In fact, more than 9 out of 10 salaried restaurant employees started out as hourly employees
- The restaurant industry is the largest employer in California, providing over 950,000 jobs. The restaurant industry provides work for almost 7% of those employed in California.

CULINARY ARTS AND HOSPITALITY MANAGEMENT

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Units</th>
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<td>CAHM 50B</td>
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<td>CAHM 50C</td>
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<td>CAHM 50L</td>
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<tr>
<td>CAHM 57</td>
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</tr>
<tr>
<td>CAHM 64</td>
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<td>CAHM 151B</td>
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<td>CAHM 155</td>
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<td>CAHM 157L</td>
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<td>CAHM 163</td>
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Approved Electives

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<td>CAHM 20</td>
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<td>CAHM 171</td>
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<tr>
<td>CAHM 172A</td>
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<tr>
<td>CAHM 174</td>
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<td>CAHM 175</td>
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<td>ACCT 151A</td>
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<td>BUS 155</td>
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<tr>
<td>MATH 154</td>
<td>4</td>
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*CAHM 50L, Culinary Basics and CAHM 151B, Advanced Culinary Arts can be taken once as Core course, and repeated one time for approved elective credit.

Associate in Science Degree Culinary Arts and Hospitality Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
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<td>CAHM Core Course</td>
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<td>Approved Electives</td>
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<td>Electives (any course numbered 1-199)</td>
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<td>Total for A.S. Degree in Culinary Arts and Hospitality Management</td>
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Certificate of Achievement

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<td>Total for Certificate of Achievement</td>
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Skills Certificates in Culinary Arts

Entry Level Baking

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<td>CAHM 50A</td>
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<tr>
<td>CAHM 50B</td>
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<tr>
<td>CAHM 50C</td>
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</tr>
<tr>
<td>CAHM 50L</td>
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</tr>
<tr>
<td>CAHM 57</td>
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</tr>
<tr>
<td>CAHM 64</td>
<td>2</td>
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<td>CAHM 149</td>
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</tr>
<tr>
<td>CAHM 155</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 157L</td>
<td>2½-5</td>
</tr>
<tr>
<td>CAHM 160</td>
<td>2½-3</td>
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<tr>
<td>CAHM 163</td>
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<td>Total for Entry Level Baking Skills Certificate</td>
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### Entry Level Cook

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<tbody>
<tr>
<td>CAHM 50A</td>
<td>Introduction to Culinary Arts Basics</td>
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</tr>
<tr>
<td>CAHM 50B</td>
<td>Introduction to Entrée Preparation and Service</td>
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<td>1</td>
</tr>
<tr>
<td>CAHM 50C</td>
<td>Introduction to Appetizers and Baking Preparation</td>
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<td>1</td>
</tr>
<tr>
<td>CAHM 50L</td>
<td>Introduction to Culinary Arts Lab</td>
<td>2</td>
<td>2</td>
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<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
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<tr>
<td>CAHM 151B</td>
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**Total for Entry Level Cook Skills Certificate:** 16

### Entry Level Catering

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<tr>
<td>CAHM 50B</td>
<td>Introduction to Entrée Preparation and Service</td>
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<tr>
<td>CAHM 50C</td>
<td>Introduction to Appetizers and Baking Preparation</td>
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<tr>
<td>CAHM 50L</td>
<td>Introduction to Culinary Arts Lab</td>
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<td>CAHM 57</td>
<td>Catering and Beverage Operations</td>
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<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
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<tr>
<td>CAHM 153</td>
<td>Garde Manger</td>
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<td>CAHM 157L</td>
<td>Catering and Beverage Operations Lab</td>
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**Total for Entry Level Catering Skills Certificate:** 16

### Culinary Arts and Hospitality Management Courses

#### CAHM 20
**Nutrition**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines essential nutrients and how they affect our health throughout life emphasizing and evaluating current developments in nutrition. May be offered in a Distance-Learning Format.

*Transfer Credit:* Transfers to CSU; UC.

#### CAHM 50A
**Introduction to Culinary Arts Basics**

1 unit; 1 hour Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces kitchen safety and sanitation, nutrition, menu planning, food costing, principles of cooking, knife skills, tools and equipment, and techniques for making stocks, sauces, and soups via lecture-based instruction.

*Transfer Credit:* Transfers to CSU.

#### CAHM 50B
**Introduction to Entree Preparation and Service**

1 unit; 1 hour Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the principles of restaurant organization; purchasing, storage, cutting, and cooking methods for meat, poultry, fish, shellfish, and vegetarian entrees via lecture-based instruction.

*Transfer Credit:* Transfers to CSU.

#### CAHM 50C
**Introduction to Appetizers and Baking Preparation**

1 unit; 1 hour Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the principles of baking breads, cakes, custards; preparation of fruits, vegetables, starches; and hors d’oeuvre preparation via lecture-based instruction.

*Transfer Credit:* Transfers to CSU.

#### CAHM 50L
**Introduction to Culinary Arts Lab**

2 units; 6 hours Laboratory

Repeatability: May be taken 2 times.

Corequisite: CAHM 50A, CAHM 50B, and CAHM 50C.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines a practical application of basic food preparation, service, costing, sanitation, menu planning, and purchasing via laboratory-based instruction.

*Transfer Credit:* Transfers to CSU.

#### CAHM 57
**Catering and Beverage Operations**

2 units; 2 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines menu planning, costing, beverage management, public relations, hospitality service, and business strategies involved in catering.

*Transfer Credit:* Transfers to CSU.

#### CAHM 64
**Sanitation and Hygiene**

2 units; 2 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines and evaluates all phases of food sanitation, public health laws, and special problems in hotel and restaurant sanitation.

*Transfer Credit:* Transfers to CSU.

#### CAHM 149
**Cake Decorating**

1 unit; 0.5 hour Lecture, 1.5 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces cake decorating techniques including filling and icing cakes, pastry bag work in borders, Australian lace, string work, writing, and flowers.

#### CAHM 151B
**Advanced Culinary Arts**

9 units; 3 hours Lecture, 18 hours Laboratory

Repeatability: May be taken 2 times.

Prerequisite: CAHM 50A, CAHM 50B, CAHM 50C, and CAHM 50L or equivalent experience.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides opportunities to create and plan menus, research and develop prep formulas, and explore a la carte, ethnic food, garde manger, and specialty baking.
CAHM 153
Garde Manger
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the art of cold food presentation, production of pates, galantines, and mousselines with emphasis on buffets and platters. Pays special attention to color, texture, and balance of food.

CAHM 155
Basic Baking and Pastry
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces equipment, skills, and procedures in commercial bakeries, including hands-on production of pastries and specialty items.

CAHM 156A-Z
Special Topics in Culinary Arts and Hospitality Management
0.5–3 units; 0.5 hour Lecture or 1.5 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A course designed to investigate special areas of interest in culinary arts, including table service, cake decorating, computer use and culinary specialties. The special selective topics will be announced in the Schedule of Classes.

CAHM 157L
Catering and Beverage Operation Lab
2.5–5 units; 7.5 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides practical application of catering techniques including menu planning, costing, hospitality service, and buffet presentation.

CAHM 159
Chocolate
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the history and manufacturing of chocolate as well as the practical uses and techniques in working with dark, white, and milk chocolate.

CAHM 160
Purchasing and Food Cost Control
2–3 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches guidelines for developing food, beverage, and labor cost controls, including theories and procedures related to food storage, portioning, designing menu formulas, costing and pricing, labor and yield calculations, sales forecasting, and basic financial statements.

CAHM 163
Food Service Management
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the theoretical and practical approaches to supervision and management for the prospective food service manager.

CAHM 165
Meat Cutting and Sausage Making
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study meat and fish butchering in the food service industry, emphasizing meat grading, commercial and retail meat identification and structure, techniques of boning beef, lamb, pork, chicken, and fish; demonstrations of cooking methods including smoking and sausage making.

CAHM 166
Bread Making
1–2 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies bread making techniques for preparing yeasted breads, sweet doughs, and specialty items such as sourdough and laminated doughs.

CAHM 167
Cultural and Ethnic Foods
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces a variety of ethnic foods which could include Middle Eastern, African, European, and/or Southeast Asian, emphasizing how to prepare and incorporate ethnic foods into a restaurant setting. May focus on specific cuisine areas.

CAHM 168
Advanced Baking and Pastry
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: CAHM 155.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines advanced application of principles and practical techniques of yeast doughs, puff pastry, cookies, tarts, cakes, tortes, frozen desserts, plate presentation, and cake decorating.

CAHM 169
Commercial Baking I
6 units; 1 hour Lecture, 15 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces hands-on commercial baking by focusing on quantity production baking and production of yeast and yeast breads, cookies, and muffins.
CAHM 170
Commercial Baking II
6 units; 1 hour Lecture, 15 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: CAHM 169.
Recommended Preparation: CAHM 149, Eligibility for ENGL 100 and READ 100.

Presents an intermediate hands-on course in commercial baking emphasizing quantity and practical application in the production of cakes, pastries, and enriched doughs.

CAHM 171
The Art of Creating Wedding Cakes
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores the creation of wedding cakes including principles of mixing, baking, filling, frosting, and decorating.

CAHM 172A
Wine and Wine Service
2 Units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides an overview of basic wine concepts including wine history, viticulture, tasting procedures, food pairing, wine menus, marketing, purchasing, and table service. Must be at least 21 years of age to enroll. Prerequisite for CAHM 174, World Wines.

CAHM 172B
Wine Varietals
1 Unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides a comparative study of wine varietals, focusing on the terroir effect on various wines. Must be at least 21 years of age. Prerequisite for CAHM 174, World Wines.

CAHM 174
World Wines
1–2 units; 1 hour Lecture
Prerequisite: CAHM 172.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores world wines in depth, focusing on differences in viticulture, wine laws, and grape varietals in major world wine producing countries including sensory perception of wine based on the terroir influences of the region. Must be 21 or over to enroll.

CAHM 175
History and Practice of Sauces
1–2 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents the history and techniques of sauce making around the world.

CAHM 176
Basic Winemaking
2 Units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the science of wine making, including viticulture, production, harvest, cellar practices, fermentation, aging, blending, and bottling.

CAHM 177
Basic Wine Grape Viticulture
2 Units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores wine grape growing practices including history, vine and grape types, wine life cycle, vineyard management, pests, and diseases.

CAHM 178
Wine Marketing and Sales
1 Unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents wine marketing and sales methods including packaging, promotion, and getting the product to the consumer.

CAHM 179
Wines of California
3 Units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces wines of California, including history, viticultural practices, wine making styles, and sensory evaluation of representative wines from specific important regions. Must be at least 21 years of age to enroll.

CAHM 198
Culinary Arts Internship
4 units; 20 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: CAHM 50ABCL, CAHM 64, CAHM 151B.
Corequisite: COMM 8.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Students will gain hands-on experience in restaurants, bakeries, hotels, resorts, casinos, or food service establishments that meet their career goals in a learning environment that is supported by Cabrillo Culinary Arts instructors and dedicated chefs and managers in the industry. Prospective interns will be interviewed and selected by the manager or chef of the approved site.
DANCE
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room VAPA1007
Regina DeCosse, Co-Program Chair, (831) 479-6591
Sharon Took-Zozaya, Co-Program Chair, (831) 477-3501
Aptos Counselor: (831) 479-6274
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Information for Dance Majors

The academic discipline of Dance encompasses the role of dance as a performing art, as well as roles in other areas, including education, health, anthropology, history, and the science of human movement. Bachelor’s and graduate degrees in Dance and related fields provide a variety of career opportunities in the public and private sectors.

Many four-year colleges and universities offer emphases in areas such as modern dance, ballet, performance, choreography, musical theatre, dance education, dance therapy, somatics, dance ethnology, dance history, and criticism. Specialties are also offered in physical therapy for dancers, dance for children, seniors, and special education.

See a counselor and consult college catalogs for specific information about existing transfer agreements with UC, CSU and some private institutions. Information on course equivalencies for major requirements at UC and CSU is available on the Internet at www.assist.org.

MODEL PROGRAM FOR DANCE

The following model program fulfills requirements for the A.A. Degree in Dance at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

### Core Courses

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Approved Electives

(Choose one of these world dance forms)

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Total for A.A. Degree in Dance 60

Dance Courses

**DANCE 10**

Dance Appreciation

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines 20th Century dance through its historical, cultural, artistic and performing contexts, using lectures, video, demonstration, viewing live performances and exploring selected dance styles.

Transfer Credit: Transfers to CSU, UC.

**DANCE 12**

Survey of World Dance Traditions

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines dance forms of the world through lecture, viewing, and discussion to explore their historical, social, and political contexts. Students will read dance texts, view videos, attend dance events, and will learn basic movements from a variety of dances of the world.

Transfer Credit: Transfers to CSU, UC.
DANCE 57
Dance Repertory
0.5-4 units; 0.5 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Rehearse and perform the choreographic repertory of faculty, guest artists, and/or student choreographers while learning how to fully produce a dance concert.
Transfer Credit: Transfers to CSU, UC.

DANCE 58
Hip Hop and Street Dance I
0.5-4 units; 0.5 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.
Introduces beginning hip hop and street dance styles and forms.
Transfer Credit: Transfers to CSU, UC.

DANCE 59
Latin Dance
0.5-3 units; 0.5 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.
Latin Dance styles, including Salsa, with additional selections from Merengue, Cumbia, Rhumba, ChaCha, Mambo, Samba and Tango.
Transfer Credit: Transfers to CSU, UC.

DANCE 60
Roots of Jazz Dance
0.5-2 units; 0.5 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
African and Black American jazz dance, emphasizing the historical and evolutionary development.
Transfer Credit: Transfers to CSU, UC.

DANCE 61
Introduction to Dance/Moving to Live Music
0.5-3 units; 0.5 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces basic dance techniques (conditioning, strength, flexibility, alignment, coordination, rhythm, body and spatial awareness), dance vocabulary, and elements of expressive style while promoting ease and confidence in movement.
Transfer Credit: Transfers to CSU, UC.

DANCE 62
Pilates Mat Work
0.5-3 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides applied instruction in introductory Pilates mat work with an emphasis on body/mind awareness, increased strength, flexibility, and efficiency of movement function leading to improved performance. Pilates mat work leads to higher level performance of all dance techniques.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses: maximum credit-4 units. DANCE 62 is a PE Activity course.

DANCE 63
Dance Improvisation
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the basic skills of improvisation which enhance creativity in movement, while exploring the elements of time, space, shape and energy as they relate to dance, dance performance and other art forms in personal and group movement experiences.
Transfer Credit: Transfers to CSU, UC.

DANCE 64
Intermediate Modern Dance
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches contemporary modern dance technique, develops personal expression and musicality, improves alignment, body awareness, and conditioning while performing longer and more challenging movement combinations to live music.
Transfer Credit: Transfers to CSU, UC.

DANCE 65
Jazz Dance
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.
Covers jazz dance techniques and styles and includes warm-up, conditioning, and jazz combinations performed to music.
Transfer Credit: Transfers to CSU, UC.

DANCE 66
Choreography
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Create dances and explore how to apply the elements of choreography to any style of dance, while working in a supportive environment with the building blocks of structure, content, and creative inspiration.
Transfer Credit: Transfers to CSU, UC.
DANCE 67  
Dance Production  
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Produce, perform and/or choreograph for the Cabrillo College Dance concert.  
Transfer Credit: Transfers to CSU, UC.

DANCE 68  
Advanced Dance Technique and Performance Skills  
0.5-3 units; 0.5 hour Lecture, 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Refines contemporary modern dance technique and performing skills while learning more complex patterns of movement, embodiment of alignment, flexibility, strength and energy flow with live dance accompaniment.  
Transfer Credit: Transfers to CSU, UC.

DANCE 69  
African Dance  
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Learn African dances from various regions in Africa including their social, historical and cultural significance.  
Transfer Credit: Transfers to CSU, UC.

DANCE 70  
Jazz Workshop  
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explorations of jazz dance styles, with attention to structure while learning to perform in jazz dance pieces.  
Transfer Credit: Transfers to CSU, UC.

DANCE 71  
Ballet Barre  
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Concurrent enrollment in another Cabrillo dance course; Eligibility for ENGL 100 and READ 100.  
Learn basic ballet barre, including warm-up, musicality, spatial awareness, and performance technique.  
Transfer Credit: Transfers to CSU, UC.

DANCE 72  
Survey of Dance Styles  
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Surveys a variety of dance and movement styles including social dance, Latin, Hip Hop, Jazz, post modern, and somatics through dance experiences.  
Transfer Credit: Transfers to CSU, UC.

DANCE 73  
Dance Theatre as Performance Art  
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explores the crafts of both dance and theatre and ways of combining these art forms to create performance art.  
Transfer Credit: Transfers to CSU, UC.

DANCE 74  
Creative Movement  
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides a playful and supportive atmosphere to explore imagination, creativity, self-expression, communication, and group play while discovering your movement potential through improvisation.  
Transfer Credit: Transfers to CSU, UC.

DANCE 75  
Introduction to Sound and Dance  
0.5-2 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explore a broad range of music, sound, and methods of working with a musical score to create dances.  
Transfer Credit: Transfers to CSU, UC.

DANCE 76  
Ballet I  
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.  
Introduces basic techniques and principles of ballet through barre, center floor work, cross the floor combinations while acquainting the student with the aesthetics, history and tradition of classical ballet.  
Transfer Credit: Transfers to CSU, UC.
DANCE 78
Ballet II
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: DANCE 61 and DANCE 76; Eligibility for ENGL 100 and READ 100.
Intermediate level techniques and principles of ballet are presented through barre, center floor work and across-the-floor combinations while exploring in more depth the aesthetics, history and tradition of the classical ballet.
Transfer Credit: Transfers to CSU, UC.

DANCE 79A–Z
Special Topics in Dance
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times, thereafter may be audited.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study of selected dance topics and styles of interest.
Transfer Credit: Transfers to CSU. Transfers to UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon review of the course outline and other materials by the UC transfer campus.

DANCE 80
Dance Rehearsal
0.5-1.5 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an opportunity for students to develop rehearsal skills for student dance pieces under the guidance of faculty with open entry rehearsals and is particularly recommended for students enrolled in DANCE 57, 66, and 67. Provides access to video taping equipment.
Transfer Credit: Transfers to CSU, UC.

DANCE 81
Swing Dance
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.
Designed to build students’ understanding of swing dance and expand their repertoire of dance skills across a wide range of traditional and popular swing dance styles.
Transfer Credit: Transfers to CSU, UC.

DANCE 82
Body/Mind Balance: Movement Awareness
0.5-3 units or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides students of any experience level an introductory survey of somatic methods for increasing body awareness and wellness through an exploration of movement and dance as a creative, performance, and healing art.
Transfer Credit: Transfers to CSU, UC.

DANCE 84
Dance For Musical Theatre
0.5-4 units; 0.5 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Rehearse and perform dance techniques, dance sequences from musicals, jazz styles related to characters and stories in theatrical settings and selected styles of musical theater dance.
Transfer Credit: Transfers to CSU, UC.

DANCE 86
Ballroom Dance
0.5-3 units; 0.5 hour Lecture or 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.
Introduces the basic skills for following and leading in selected ballroom dance styles including: Fox Trot, Waltz, Swing, Two Step, Salsa and additional popular ballroom dances.
Transfer Credit: Transfers to CSU, UC.

DANCE 87
Dances of Mexico: Baile Folklorico
0.5-3 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents selected regional dances of Mexico taught for technical and cultural understanding. Emphasis is given to the origin, development, styling and performance of the material.
Transfer Credit: Transfers to CSU, UC.

DANCE 90
Integrated Dance: Dance for All Bodies and Abilities
0.5-3 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces students with adaptive needs and mainstream students to techniques for dancing together, expanding body and spatial awareness, coordination and movement vocabulary, while developing physical ability and creative expression.
Transfer Credit: Transfers to CSU.
Dental Hygiene

Health, Wellness, Physical Education and Athletics
Division

Kathleen Welch, Division Dean
Division Office, Room 1102

Bridgete Clark, D.D.S., Program Chair, (831) 479-6471
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6471 for more information
http://www.cabrillo.edu/programs

Dental Hygiene Occupational Program

The Dental Hygiene Program at Cabrillo College, affiliated with the University of the Pacific, Arthur A. Dugoni School of Dentistry, San Francisco, requires two full years. Upon completion of the program, students are eligible to take the state and national examinations. Enrollment is limited to 20 students each fall. Program retention is based on a minimum grade of "C" in all courses in the published dental hygiene curriculum. Courses must be taken sequentially.

A dental hygienist is a person who is trained and licensed to clean teeth, take dental x-rays, and provide related dental services and care, usually under the supervision of a dentist. The dental hygiene profession demands a high level of ethics, attitude, confidentiality and performance.

How to Apply

Admission to the Dental Hygiene program requires a separate and additional process to the general college admission. The Dental Hygiene information and application forms are available in the Dental Hygiene Office (Room 611A) and on the website (www.cabrillo.edu/academics/dentalhygiene). General college application materials are available: in the Admissions and Records Office, Enrollment Services Center, Building 100, (831) 479-6201; online (www.cabrillo.edu) or by mailing a written request for the application to Cabrillo College Admissions and Records, 6500 Soquel Drive, Aptos, CA 95003.

Process of Application

Read all material in the application packet and the appropriate sections of the Cabrillo College Catalog about the associate degree of Dental Hygiene Program, academic regulations, attendance and graduation requirements. Return the completed dental hygiene application forms by certified mail to the Dental Hygiene Department. You must include one set of official transcripts from all colleges attended (including Cabrillo College transcripts.)

A completed application includes:
1. Dental Hygiene application form,
2. Student File form,
3. Performance Standards form,
4. Official sealed transcripts documenting all college prerequisite courses completed.

Acceptance is based on:
1. Completed application as outlined above,
2. Successful completion of all prerequisites with a grade "C" or better,
3. Completion of all science prerequisites with a GPA of 2.7 or better,
4. Completion of English prerequisite with a GPA of 2.00 or better.

Due to the rigorous academic nature of the Dental Hygiene Program, it is advisable to complete the general education requirements for the Associate Degree, including BIO 7, before entering the program. No more than one re-enrollment in a Dental Hygiene Program is allowed. Other courses highly recommended for preparation are DH 155, DH 159, MA 178.

Security Screening

To comply with state and local regulations for health care providers, students enrolled in the Cabrillo College Dental Hygiene program are required to meet vaccination and drug testing requirements and provide documentation to the Student Health Center before entering the program. Students are also required to complete criminal background checks, and may be required to undergo fingerprinting.

**Prerequisites**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 4</td>
<td>Human Anatomy 4</td>
</tr>
<tr>
<td>*BIO 5</td>
<td>Human Physiology 4</td>
</tr>
<tr>
<td>*BIO 6</td>
<td>Microbiology 4</td>
</tr>
<tr>
<td>*CHEM 30B</td>
<td>Introductory Organic Chemistry and Biochemistry for Health Occupations 4</td>
</tr>
<tr>
<td>ENGL 1A/1AMC</td>
<td>English Composition 3</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ENGL 1AH/1AMCH</td>
<td>Honors College Composition 3</td>
</tr>
</tbody>
</table>

* *MATH 154, or equivalent is a prerequisite for CHEM 30A; CHEM 30A is a prerequisite for CHEM 30B*; BIO 5 and BIO 6.

These prerequisites may also be used to satisfy appropriate general education areas.

Successful completion of these prerequisites or equivalent is required before applying to the Dental Hygiene Program. It is recommended that all science prerequisites be completed within the last five (5) years.
Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 7</td>
<td>Head and Neck Anatomy and Embryology</td>
<td>2</td>
</tr>
<tr>
<td>DH 160</td>
<td>Oral Health Education</td>
<td>2</td>
</tr>
<tr>
<td>DH 161</td>
<td>Preparation for Dental Hygiene Clinic</td>
<td>½</td>
</tr>
<tr>
<td>DH 162A</td>
<td>Patient Assessment I</td>
<td>3</td>
</tr>
<tr>
<td>DH 162B</td>
<td>Patient Assessment II</td>
<td>3</td>
</tr>
<tr>
<td>DH 163A</td>
<td>Dental Radiology</td>
<td>3</td>
</tr>
<tr>
<td>DH 163B</td>
<td>Dental Radiographic Interpretation &amp; Case Studies</td>
<td>1</td>
</tr>
<tr>
<td>DH 164</td>
<td>Dental Materials</td>
<td>2</td>
</tr>
<tr>
<td>DH 167</td>
<td>Introduction to Clinical Dental Hygiene</td>
<td>5</td>
</tr>
<tr>
<td>DH 173</td>
<td>Clinical Dental Hygiene I</td>
<td>5</td>
</tr>
<tr>
<td>DH 174</td>
<td>Periodontics</td>
<td>2</td>
</tr>
<tr>
<td>DH 180</td>
<td>Oral Pathology</td>
<td>2</td>
</tr>
<tr>
<td>DH 181</td>
<td>Clinical Dental Hygiene II</td>
<td>6</td>
</tr>
<tr>
<td>DH 182A</td>
<td>Advanced Case Studies</td>
<td>1</td>
</tr>
<tr>
<td>DH 183</td>
<td>Clinical Dental Hygiene III</td>
<td>6</td>
</tr>
<tr>
<td>DH 184A</td>
<td>Pain Management I</td>
<td>2</td>
</tr>
<tr>
<td>DH 184B</td>
<td>Pain Management II</td>
<td>1</td>
</tr>
<tr>
<td>DH 186A</td>
<td>Community Oral Health</td>
<td>2</td>
</tr>
<tr>
<td>DH 186B</td>
<td>Community Oral Health and Case Studies</td>
<td>1</td>
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<tr>
<td>DH 187</td>
<td>Dental Hygiene Ethics &amp; Law</td>
<td>2</td>
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Elective

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>DH 188</td>
<td>Clinical Dental Hygiene IV</td>
<td>½</td>
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Additional Graduation Requirements

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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<tbody>
<tr>
<td>COMM 1/H</td>
<td>Public Speaking</td>
<td>3</td>
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<td>OR</td>
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<td></td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 20</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1/H</td>
<td>Introduction to Sociology: Understanding Society</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*SOC 2/H | Contemporary Social Problems                                | 3     |

*SOC 2/H meets the Multicultural Studies Requirement for graduation. Please note that the above courses may also be used to satisfy appropriate general education areas.

General Education

This A.S. Degree requires completion of a 21-unit general education pattern (see Cabrillo College Catalog under Associate in Science Degree or the A.S. Degree worksheets available in Counseling or on the Transfer and Articulation website at www.cabrillo.edu/services/articulation/info/studindex/htm). Completing a U.S. History or U.S. Political Science course and a Humanities course, in addition to the above prerequisites and graduation requirements, will complete the A.S. Degree general education pattern for dental hygiene students.

A Bachelor of Science/Bachelor of Arts Degree from a regionally accredited college or university will satisfy all general education and competency requirements for Cabrillo’s non-transfer A.A. and A.S. degrees, with the exception of the multicultural requirement and program specific graduation requirements.

Mathematics Competency Requirement

The A.S. Mathematics Requirement may be met by successful completion of intermediate algebra or equivalent or a higher-level mathematics course with a grade of "C" or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.

Multicultural Requirement

An approved multicultural course is required for graduation. This course may be double counted with general education or other program graduation requirements. Courses taken at other regionally accredited colleges can be used when approved by a Cabrillo Counselor.

Associate in Science Degree in Dental Hygiene

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE</td>
<td>General Education Courses</td>
<td>21</td>
</tr>
<tr>
<td>CORE</td>
<td>Core Courses</td>
<td>53½</td>
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</tbody>
</table>

*Total for A.S. Degree in Dental Hygiene 74½

*Plus approved prerequisite units. See above for information on prerequisites

SKILLS CERTIFICATE: DENTAL ADMINISTRATIVE ASSISTANT

The Dental Administrative Assistant Program (DAAP) Skills Certificate prepares students for employment in a position in a dental office setting that involves performing as a dental receptionist.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 103A</td>
<td>Data Entry</td>
<td>1</td>
</tr>
<tr>
<td>DH 155</td>
<td>Dental Terminology</td>
<td>3</td>
</tr>
<tr>
<td>DH 157</td>
<td>Dental Law and Ethics</td>
<td>2</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 184</td>
<td>Health Care Communication &amp; Etiquette</td>
<td>2</td>
</tr>
<tr>
<td>DH 159</td>
<td>Dental Insurance</td>
<td>2½</td>
</tr>
<tr>
<td>DH 199</td>
<td>Career Work Experience Education</td>
<td>1</td>
</tr>
<tr>
<td>MA 172</td>
<td>Medical Office Procedures</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units 14½

Dental Hygiene Courses

**DH 155**

**Dental Terminology**

3 units; 3 hours Lecture

Repeatability: May be taken 2 times.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches fundamentals of dental/medical word building, with an emphasis on prefixes, word roots, suffixes, combining forms, abbreviations, and lay terms. Provides a background for any dental or paramedical course.

**DH 157**

**Dental Law & Ethics**

2 units; 2 hours Lecture

Repeatability: May be taken 2 times.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches dental ethics and dental legal issues, including discussion of California state dental regulations and legal standards of practice for dental care workers.
DH 159
Dental Insurance
2.5 units; 2.5 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: CABT 103A DH 155.
Corequisite: Completion of or concurrent enrollment in DH 155; CABT 130A.
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Teaches theory and application of dental insurance billing and procedures as used in dental offices. Includes hands-on practice with insurance claim forms and dental practice management software.

DH 160
Oral Health Education
2 units; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program; PSYCH 1 and CAHM 20 or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents current concepts of prevention and psychological, motivational and communication techniques.

DH 161
Preparation for Dental Hygiene Clinic
0.5 unit; 0.5 hour Lecture, 0.5 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches guidelines, procedures, and infection control in the dental hygiene clinic, ethics, and legalities of dental practice.

DH 162A
Patient Assessment I
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in Dental Hygiene Program and current CPR license.
Corequisite: DH 171.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces medical-dental history, oral inspection, oral manifestation of diseases, dental office emergencies, and documentation of assessment data.

DH 162B
Patient Assessment II
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: DH 162A and Enrollment in the Dental Hygiene Program.
Corequisite: DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies dental, medical and pharmacological needs of patients with emphasis on the care and management of special needs patients; correlates classification and study of drugs.

DH 163A
Dental Radiology
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents principles of radiation theory, techniques, laboratory and clinical application, radiation safety principles and techniques, care and operation of equipment, processing techniques and mounting.

DH 163B
Dental Radiographic Interpretation and Case Studies
1 unit; 1 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DH 163A; Enrollment in the Dental Hygiene Program; BIO 7 or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches identification of radiographic anatomy with emphasis on specialized techniques.

DH 164
Dental Materials
2 units; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the composition and fabrication of dental restorations, the proper care of dental restorations, and an introduction to dental specialties.

DH 170
Tooth Morphology, Oral Histology, and Oral Embryology
2 units; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches recognition of normal and abnormal clinical appearance of the permanent and deciduous dentition as well as in-depth oral histology and oral embryology.

DH 171
Introduction to Clinical Dental Hygiene
5 units; 3 hours Lecture, 9 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program and DH 161.
Corequisite: DH 162A and DH 163A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces professional conduct, assessment, exploring, probing, and scaling techniques through laboratory and clinical experiences. First in a four-course series in clinical dental hygiene practice.
DH 173
Clinical Dental Hygiene I
5 units; 2 hours Lecture, 14 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program and DH 171.
Corequisite: DH 162B and DH 163B and DH 164.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces dental & periodontal charting, desensitizing procedures, pit & fissure sealants, ultrasonic scalers, and Gracey curets through laboratory and clinical experiences. Second in a four-course series in clinical dental hygiene practice.

DH 174
Periodontics
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program and BIO 6.
Corequisite: DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents fundamental principles of Periodontology: normal and diseased periodontium, the disease classifications, etiology and treatment. Emphasis is on clinical application. May be offered in a Distance-Learning Format.

DH 180
Oral Pathology
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program and DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces general pathology and clinical pathology of diseases affecting the oral, head and neck areas.

DH 181
Clinical Dental Hygiene II
6 units; 1 hour Lecture, 20 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program and DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces advanced clinical techniques, soft tissue curettage, advanced treatment planning, and evaluation of treatment through clinical experiences. Third in a four-course series.

DH 182A
Advanced Case Studies
1 unit; 1 hour Lecture
Repeatability: May be taken 2 times.
Prerequisite: DH 173.
Corequisite: DH 181.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Demonstrates application of critical thinking skills in relating theoretical principles to clinical practice using a case study approach.

DH 182A–Z
Special Topics in Dental Hygiene Education
0.5-3 units; 0.5 hour Lecture, 1.5 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches selected topics in Dental Hygiene Education not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.

DH 183
Clinical Dental Hygiene III
6 units; 2 hours Lecture, 16 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DH 181 and Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies new technology & computer based skills for the operatory, refinement of local anesthesia, nitrous oxide analgesia, and advanced clinical techniques through clinical experiences at Cabrillo and outside clinics. Fourth in a four-course series in clinical dental hygiene practice.

DH 184A
Pain Management I
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program.
Corequisite: BIO 7.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches theory and techniques for administration of regional anesthetic agents, including nerve and field blocks limited to the oral cavity.

DH 184B
Pain Management II
1 unit; 1 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Prepares the student to administer nitrous oxide conscious sedation competently in clinical situations, with supervised practice.

DH 186A
Community Oral Health
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the principles and practices of dental public health, and the role of the dental hygienist as an innovator of and educator in community health programs.
DH 186B
Community Oral Health and Case Studies
1 unit; 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DH 186A and Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers planning, implementation, and evaluation of a dental health project of the student’s own design with a dentally-underserved population. A continuation of DH186A.

DH 187
Dental Hygiene Law and Ethics
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches current concepts in ethics and legalities involved in dental hygiene practice.

DH 188
Clinic Dental Hygiene IV
0.5 unit; 0.5 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Prerequisite: DH 183.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Refines advanced clinical techniques, advanced treatment planning, and evaluation of treatment through clinical experiences at Cabrillo and outside clinics to the fifth semester level. Elective course in the DH Department.

DIGITAL BRIDGE ACADEMY:

DIGITAL MANAGEMENT AND CAREER PREPARATION
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Diego James Navarro, Program Director,
(831) 477-5166
Digital Bridge Academy Office, (831) 477-5164
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
http://www.cabrillo.edu/academics/wdba/

Information for Digital Management and Career Preparation Students
The Digital Bridge Academy (DBA) is an innovative program designed for students who are under-prepared for college. The DBA offers a carefully sequenced educational program of academic support, instruction in how to grow in self-knowledge and self-discipline, work experience, and student support to prepare students for success in careers with a future. Careers in the Digital World are high-wage, high-demand careers that require the daily use of digital technology. These careers are found in the areas of Biology, Chemistry, Physics, Computer Networking and System Administration, Computer and Information Systems, Engineering, Engineering Technology, Administration of Justice, Business, Allied Health (Nursing, Radiologic Technology, Dental Hygiene), and laboratory settings (Biotechnology, Marine Science). The DMCP courses listed as part of this certificate prepare students for success in selecting and completing college courses leading to a digital technology-based career. The DMCP courses also prepare students to succeed in leadership positions in these careers, introducing skills needed for a career in management.

DMCP 110, the foundation course, is a 3-unit introductory course offered the first two weeks of each semester. Prior computer experience is not required for potential students.

For more information, contact the Digital Bridge Academy Office, phone (831) 477-5164, or our web site at http://www.cabrillo.edu/academics/wdba/

Skills Certificate: Preparation for Leadership and Management Careers in the Digital World

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMCP 110</td>
<td>Foundations of Digital Management</td>
</tr>
<tr>
<td>DMCP 111</td>
<td>Introduction to Digital Management</td>
</tr>
<tr>
<td>DMCP 112</td>
<td>Fundamentals of Digital Management</td>
</tr>
<tr>
<td>DMCP 113</td>
<td>Fundamentals of Digital Management Intensive</td>
</tr>
<tr>
<td>DMCP 120</td>
<td>Applications of Literacy Skills</td>
</tr>
<tr>
<td>CS 1L</td>
<td>Lab: Introduction to Computers and Computer Technology</td>
</tr>
<tr>
<td>CG 54</td>
<td>Career Planning</td>
</tr>
<tr>
<td>DANCE 82</td>
<td>Body/Mind Balance: Movement Awareness</td>
</tr>
</tbody>
</table>

Total for Skills Certificate 14–15½ units

Digital Management and Career Preparation Courses

DMCP 30
Applied and Conceptual Survey of the Sciences
2 units; 1.5 hours Lecture, 1.5 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a multidisciplinary approach to biology, chemistry, and physics covering basic principles and current applications.
Transfer Credit: Transfers to CSU.

DMCP 110
Digital Bridge Academy Foundation Course
3 units; 2.75 hours Lecture, 0.5 hour Laboratory
Repeatability: May be taken 3 times.
Recommended Preparation: READ 255 or eligibility for READ 205; Eligibility for ENGL 100.
Develops professional behaviors that lead to academic and ‘knowledge work’ career success such as developing self-discipline, leading self-managed teams, and creating effective teams composed of individuals with different working styles.
DMCP 111
Introduction to Team Self-Management
2 units; 2 hours Lecture
Repeatability: May be taken 4 times.
Corequisite: DMCP 112.
Recommended Preparation: READ 255 or eligibility for READ 205; Eligibility for ENGL 100.
Hybrid Requisite: Completion of or concurrent enrollment in DMCP 110.
Introduces the theory and practice of team self-management and its application in work organizations: exploring the connections between one’s purpose and intentions and one’s behaviors, and develops the self-management skills to successfully attain one’s goals.

DMCP 112
Fundamentals of Digital Management
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Corequisite: CS 1L and DMCP 111.
Hybrid Requisite: Completion of or concurrent enrollment in DMCP 110.
Recommended Preparation: READ 255 or eligibility for READ 205.
Explores fundamental digital management topics: leading and working on a self-managing work team, developing project management skills, and identifying and analyzing opportunities that lead to proposals and business plans. Additional topics include: defining knowledge work cultures, solving a social justice problem through utilizing discovery-based research methodology, and marketing new ideas.

DMCP 113
Fundamentals of Digital Management Intensive
1.5 units; 1.5 hours Lecture
Repeatability: May be taken 4 times.
Corequisite: DMCP 111 and DMCP 112.
Hybrid Requisite: Completion of or concurrent enrollment in DMCP 110.
Recommended Preparation: READ 255 or eligibility for READ 205.
Develops professional skills that lead to knowledgework career success. Skills include facilitating team meetings, recording team discussions and decisions, working within a self-managed team studying a social justice issue, and using a scientific method-based approach for creating funding proposals and business plans.

DMCP 115A
Digital Management - Self-Managing Teams
1-2 units; 1 hour Lecture or 2 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: DMCP 112 (may be taken concurrently).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents intermediate digital management topics related to self-managed work teams. Topics include leadership in different knowledge work cultures, building effective self-managing teams, forecasting the future using scenario planning methods, and servant leadership. Course is based on curriculum used to train executives in large companies to forecast the future and to manage self-managing teams.

DMCP 115B
Digital Management-Change Management
1.5 units; 1.5 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents advanced digital management topics focused on how change and innovation occurs in organizations. Emphasizes methods used by executives in large companies to lead and manage change effectively.

DMCP 116A
Advanced Digital Management - Management and Leadership
1-2 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: DMCP 115A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents advanced digital management topic focused on the difference between management versus leadership, and how to create and deliver value in the workplace and classroom. Course is based on curriculum used to train executives in large companies to lead and manage effectively.

DMCP 116B
Advanced Digital Management - Consulting Skills
1-2 units; 1 hour Lecture or 2 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: DMCP 115A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents advanced digital management topic focused on developing components of a successful consulting practice by creating value for clients. Course is based on curriculum used to train professionals in large companies as consultants.

DMCP 116C
Advanced Digital Management - Leadership and Sustainability
1-2 units; 1 hour Lecture or 2 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: DMCP 115A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents advanced digital management topics focused on leadership and sustainability. Scenario building, complex systems and networks, change management and control systems inventory skills are used to evaluate personal and community environmental impacts. Topics include evidence for trends regarding business decision and environmental impact, pressures for economic growth and resource limitations, both globally and within the local community.
DMCP 120
Applications of Literacy Skills
3 units; 3 hours Lecture, 1 hour Laboratory
Corequisite: DMCP 111 and DMCP 112.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops reading and writing skills in conjunction with other Digital Bridge courses with emphasis on essay writing, revision and editing, grammar, reading comprehension, and vocabulary. Assists in the preparation for ENGL 1A/1AH/1AMC/1AMCH.

DMCP 131
Applied Survey of Careers in Technology and Science
2 units; 1.5 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Identifies knowledge, skills and abilities common to careers in computer science, computer and information systems, engineering, engineering technology and allied health. Explores career paths in these fields and identifies strategies for career advancement that are unique to careers in technology and science.

DMCP 160A-ZZ
Special Topics in Digital Management Career Preparation
1-4 units; 1 hour Lecture or 3 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Designed to investigate special selected areas of interest in Digital Management Career Preparation not covered by regular catalog offerings. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.

DIGITAL MEDIA
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room VAPA1007
Beth Regardz, Program Chair, (831) 479-6475
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Digital Publishing and Web Media Occupational Programs
Programs in the Digital Media Department provide instruction in the creation, preparation, and production of media for publication in print and on screen. Classroom instruction and lab assignments give students practical experience in various graphic design, digital publishing, interactive multimedia, motion media, and web media software applications and techniques. Students learn concepts, principles, and processes for digital media project design and development.
A.S. Degrees and Certificates of Achievement are offered in the Digital Publishing and Web Media programs. A diverse selection of approved electives allows students to acquire specialized skills in particular areas of interest, such as: photography, CAD, graphic design, illustration, virtual reality, 3D animation, architectural modeling, color theory, engineering graphics, printing techniques, advertising, journalism, music, web design, and web publishing.

Digital Publishing and Web Media

Digital Publishing Program
The Digital Publishing program addresses communication design principles and processes for producing and publishing primarily printed materials. Students learn typography, formatting, file management, color pre-press, and proofing strategies for the design and layout of printed media. Principles of design and layout learned in digital publishing for pre-press can be applied to screen media, web publishing, multimedia, video and other non-print uses.

Web Media Program
The Web Media program provides instruction in the principles, concepts, tools, and techniques involved in the design, development, and production and publication of interactive web media. The courses are designed to prepare students for entry-level positions in the fields of planning, designing, and producing web sites and related interactive screen-based media.

Degrees and Certificates
Completion of the programs gives students the fundamental range of skills needed to work in the multifaceted fields of digital publishing and web media design and production. Cabrillo offers a Certificate of Achievement and an Associate in Science Degree for both Digital Publishing and Web Media. Students may obtain an A.S. Degree in Digital Publishing or Web Media (by meeting the requirements of either area of concentration). It is not possible to obtain separate A.S. Degrees in both Digital Publishing and Web Media. Separate Certificates of Achievement may be obtained in both areas of concentration.
Skills Certificates provide basic sets of career improvement skills. Students may earn as many skills certificates as they need to reach their learning goals.
Career Opportunities

The digital publishing and web media fields encompass a wide array of occupations involving almost every sector of society. Jobs and careers are always emerging in the fast-paced, ever-changing world of digital media. Students from the programs qualify for entry-level jobs, internships, and starting their own businesses.

Programming, drawing ability, writing proficiency, and animation skills are especially useful. Employers have specified three important qualities, in order of importance, for digital media job seekers: 1) Talent (inventive and creative with a strong interest in digital media), 2) Teamwork (group communication and problem-solving skills), and 3) Technological aptitude (proficient with digital tools and techniques).

DIGITAL PUBLISHING

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DM 1</td>
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<tr>
<td>DM 4</td>
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Total for Core Courses 7

DIGITAL PUBLISHING PROGRAM

Digital Publishing Required Courses

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<th>Course</th>
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<tr>
<td>DM 2</td>
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<td>DM 6</td>
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<tr>
<td>DM 8</td>
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<td>DM 12</td>
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<td>DM 110</td>
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Total for Digital Publishing Required Courses 15

DIGITAL MEDIA Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>AP 9A</td>
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<tr>
<td>AP 40VA</td>
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<td>AP 45</td>
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<tr>
<td>AP 46A</td>
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<tr>
<td>AP 46B</td>
<td>3</td>
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<tr>
<td>ART 2A</td>
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<td>ART 4</td>
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<td>ART 27</td>
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<td>ART 28</td>
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<td>BUS 89</td>
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<tr>
<td>CABT 110A</td>
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DM 60A Web Publishing 1: (X)HTML and CSS Level 1 3
DM 70 Web Design Basics using Dreamweaver 3
DM 72 Web Design and Animation using Flash 3
DM 74 Animation Illustration Techniques 3
DM 76 Design for Web Media 3
DM 101 Fundamentals of the Macintosh Operating System 3
DM 105 Animation Perspectives 3
DM 107 Basic Framemaker 3
DM 110 Digital Illustration 3
DM 113 Photoshop Techniques II 3
DM 134A Introduction to Video Production using Final Cut Pro 3
DM 134B Intermediate Video Production using Final Cut Pro 3
DM 134C Digital Video Projects 3
DM 160B Web Publishing 2: Graphics and CSS Level 2 3
DM 160C Web Publishing 3: Servers, Scripts, and Advanced CSS Level 2 3
DM 166 Web Site Architecture 3
DM 171 Intermediate Web Design using Dreamweaver 3
DM 173A Interactive Projects using Flash 3
DM 173B Interactive Programming using Flash 3
DM 190A-2Z Special Topics in Digital Media ½-4
DM 190CD Design and Delivery of an Online Course 1-3
DM 199C Career Work Experience Education ½-4
ENGL 16 Magazine Editing and Publication 3
ENGL 49A The Language of Film: Film History 3
ENGL 49B The Language of Film: Special Topics in Film 3
ENGL 59A-Z The Language of Film: Special Topics in Film 3
JOURN 53 Newspaper Production 1-3
TA 77 Correlation of the Arts 3


Associate in Science Degree in Digital Publishing

*General Education Requirements 21
Core Courses 7
Digital Publishing Required Courses 15
Digital Media Approved Electives and/or Special Studies 12
General Electives 5
Total for A.S. Degree in Digital Publishing 60

Certificate of Achievement in Digital Publishing

Core Courses 7
Digital Publishing Required Courses 15
ENGL 100/1AH/1AMC/1AMCH or CABT 157 3
OR
*COMM 2 Group Discussion 3
*COMM 10 Communication Process 3
Total for Certificate of Achievement in Digital Publishing 28

*COMM 2 or COMM 10 may also be used for General Education credit toward partial fulfillment of Area A for the A.S. Degree.
WEB MEDIA

Core Courses
DM 1 Introduction to Digital Media .............................................. 4
DM 4 Digital Graphics using Photoshop and Illustrator .................. 3
Total Core for Courses .......................................................... 7

Web Media Required Courses
DM 12 Photoshop Techniques ..................................................... 3
DM 60A Web Publishing 1: (X)HTML and CSS Level 1 ................. 3
DM 72 Web Design and Animation using Flash ............................ 3
DM 76 Design for Web Media .................................................... 3
Total for Web Media Required Courses ..................................... 12

WEB MEDIA Approved Electives
DM 14 Digital Imaging .............................................................. 3
DM 70 Web Design Basics using Dreamweaver ............................ 3
DM 72 Web Design and Animation using Flash ............................ 3
DM 101 Fundamentals of the Macintosh Operating System ............ 3
DM 110 Digital Illustration ....................................................... 3
DM 113 Photoshop Techniques II ............................................. 3
DM 160B Web Publishing 2: Graphics and CSS Level 2 ............... 3
DM 160C Web Publishing 3: Servers, Scripts, and Advanced CSS ... 3
DM 166 Web Site Architecture .................................................. 3
DM 173A Interactive Projects using Flash ................................... 3
DM 173B Interactive Programming using Flash ............................ 3
BUS 89 Starting and Operating an eCommerce Business ............... 3


Certificate of Achievement in Web Media
Core Courses ................................................................. 7
Web Media Required Courses .................................................. 12
ENGL 100/1A/1AH/1AMC/1AMCH or CABT 157 ......................... 3
*COMM 2 Group Discussion .................................................. 3
OR
*COMM 10 Communication Process ....................................... 3
Total for Certificate of Achievement in Web Media ....................... 25

*COMM 2 or COMM 10 may also be used for General Education credit toward partial fulfillment of Area A for A.S. degree.

Certificate of Achievement in Web Design
Certificate of Achievement in Web Media .................................... 25
Web Design Required Courses
DM 70 Web Design Basics using Dreamweaver ............................ 3
DM 72 Web Design and Animation using Flash ............................ 3
DM 113 Photoshop Techniques II ........................................... 3
DM 173A Interactive Projects using Flash ................................... 3
Total for Certificate of Achievement in Web Design ..................... 37

Certificate of Achievement in Web Development
Certificate of Achievement in Web Media .................................... 25
Web Development Required Courses
DM 70 Web Design Basics using Dreamweaver ............................ 3
DM 160B Web Publishing 2: Graphics and CSS Level 2 ............... 3
DM 160C Web Publishing 3: Servers, Scripts, and Advanced CSS .... 3
Total for Certificate of Achievement in Web Development .......... 34

CAREER IMPROVEMENT SKILLS CERTIFICATES
Skills Certificate in Animation
DM 1 Introduction to Digital Media ........................................... 4
DM 4 Digital Graphics using Photoshop and Illustrator ................ 3
DM 72 Web Design and Animation using Flash ........................... 3
DM 74 Animation Illustration Techniques .................................. 3
OR
DM 110 Digital Illustration ..................................................... 3
DM 105 Animation Perspectives .............................................. 3
OR
ETECH 140 Introduction to Maya ............................................. 3
Total for Skills Certificate in Animation .................................... 16

Skills Certificate in Digital Imaging
DM 1 Introduction to Digital Media ........................................... 4
DM 4 Digital Graphics using Photoshop and Illustrator ................. 3
DM 12 Photoshop Techniques .................................................. 3
DM 110 Digital Illustration ..................................................... 3
DM 113 Photoshop Techniques II ........................................... 3
Total for Skills Certificate in Digital Imaging .............................. 16

Skills Certificate in Digital Video
DM 1 Introduction to Digital Media ........................................... 4
DM 4 Digital Graphics using Photoshop and Illustrator ................. 3
DM 134A Introduction to Digital Video using Final Cut Pro ............ 3
DM 134B Intermediate Video Production using Final Cut Pro ........... 3
Total for Skills Certificate in Digital Video .................................. 13
### Skills Certificate in eCommerce

<table>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
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</tr>
<tr>
<td>DM 60A</td>
<td>Web Publishing 1: (X)HTML and CSS Level 1</td>
<td>3</td>
</tr>
<tr>
<td>DM 70</td>
<td>Web Design Basics using Dreamweaver</td>
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</tr>
<tr>
<td>DM 160B</td>
<td>Web Publishing 2: Graphics and CSS Level 2</td>
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<tr>
<td>BUS 89</td>
<td>Starting and Operating an eCommerce Business</td>
<td>3</td>
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<td><strong>Total</strong></td>
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### Skills Certificate in Print Media

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<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
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<tr>
<td>DM 2</td>
<td>Introduction to Digital Publishing using InDesign</td>
<td>3</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics using Photoshop and Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>DM 6</td>
<td>Advanced Digital Publishing using InDesign</td>
<td>3</td>
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<tr>
<td>DM 8</td>
<td>Design for Digital Publishing</td>
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### Skills Certificate in Screen Media

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<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics using Photoshop and Illustrator</td>
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<tr>
<td>DM 60A</td>
<td>Web Publishing 1: (X)HTML and CSS Level 1</td>
<td>3</td>
</tr>
<tr>
<td>DM 72</td>
<td>Web Design and Animation using Flash</td>
<td>3</td>
</tr>
<tr>
<td>DM 76</td>
<td>Design for Web Media</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
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### Skills Certificate in Web Design

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<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 60A</td>
<td>Web Publishing 1: (X)HTML and CSS Level 1</td>
<td>3</td>
</tr>
<tr>
<td>DM 72</td>
<td>Web Design and Animation using Flash</td>
<td>3</td>
</tr>
<tr>
<td>DM 76</td>
<td>Design for Web Media</td>
<td>3</td>
</tr>
<tr>
<td>DM 173A</td>
<td>Interactive Projects using Flash</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
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### Skills Certificate in Web Production

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics using Photoshop and Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>DM 60A</td>
<td>Web Publishing 1: (X)HTML and CSS Level 1</td>
<td>3</td>
</tr>
<tr>
<td>DM 70</td>
<td>Web Design Basics using Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>DM 72</td>
<td>Web Design and Animation using Flash</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
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</tr>
</tbody>
</table>

### Digital Media Courses

#### DM 1

**Introduction to Digital Media**

4 units; 3 hours Lecture, 6 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces digital media from historical and contemporary perspectives, emphasizing fundamentals of design, the production process, and creative technology. Topics include: concepts, trends, content, methods, forms, careers, and delivery of digital media for print, screen display, and interactivity. Portions of the course will be taught in a Distance-Learning Format.

*Transfer Credit*: Transfers to CSU, UC.

#### DM 2

**Introduction to Digital Publishing using InDesign**

3 units; 3 hours Lecture, 6 hours Laboratory

Repeatability: May be taken 2 times.

Prerequisite: DM 1 or equivalent skills.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers digital page design and layout, typographic fundamentals, and precise formatting to produce print-ready documents and publications. Taught on Macintosh. Adaptable to Windows.

*Transfer Credit*: Transfers to CSU.

#### DM 3

**Design in Society**

3 units; 3 hours Lecture, 5 hours Laboratory

Prerequisite: DM 1 or equivalent skills.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies the role of design in shaping the environment, utilitarian objects, and communication for commerce, culture, and entertainment.

*Transfer Credit*: Transfers to CSU.

#### DM 4

**Digital Graphics using Photoshop and Illustrator**

3 units; 3 hours Lecture, 6 hours Laboratory

Repeatability: May be taken 2 times.

Prerequisite: DM 1 or equivalent skills.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.


*Transfer Credit*: Transfers to CSU, UC.
DM 6
Advanced Digital Publishing using InDesign
3 units; 3 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 2 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the use of InDesign to create advanced print projects, focusing on design principles, typography, style sheets, color, graphic formats, long documents, pre-press requirements, and efficient working techniques. Taught on Macintosh. Adaptable to Windows.
Transfer Credit: Transfers to CSU.

DM 8
Design for Digital Publishing
3 units; 3 hours Lecture, 5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 2 and DM 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys graphic design and communication arts careers in digital media, covers practical application of design principles for print-based and cross-media production, and focuses on logo and portfolio design. Uses page layout and graphics software to complete exercises and projects. Taught on Macintosh. Adaptable to Windows.
Transfer Credit: Transfers to CSU.

DM 9
Digital Pre-press
3 units; 2 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 6 and DM 8 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers planning, design and production of community clients’ print projects; including: pre-press file management, bidding, 4-color, ink, paper, output, proofing, professional ethics, and industry standards. Taught on Macintosh. Adaptable to Windows. Portions of the course may be taught in a distance format.
Transfer Credit: Transfers to CSU.

DM 12
Photoshop Techniques
3 units; 3 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 3 times.
Prerequisite: DM 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers intermediate Photoshop techniques and topics including: image manipulation, adjustment layers, resolution, masks, channels, retouching, and colorization. Taught on Macintosh. Adaptable to Windows.
Transfer Credit: Transfers to CSU.

DM 14
Digital Imaging
3 units; 3 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 2 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers advanced Photoshop and Illustrator techniques to create images using digital tools to reproduce traditional drawing and painting methods including: use of drawing tablet, digital camera, lighting, color and perspective. Taught on Macintosh. Adaptable to Windows.
Transfer Credit: Transfers to CSU.

DM 60A
Web Publishing 1: (X)HTML and CSS Level 1
3 units; 2 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: DM 1 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Presents planning and production of web sites including: text, graphics, hand-coded (X)HTML, basic cascading style sheets (CSS Level 1), and (X)HTML and CSS validation. Taught on Macintosh and Windows.
Transfer Credit: Transfers to CSU.

DM 70
Web Design Basics using Dreamweaver
3 units; 2 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 1 and DM 60A or equivalent skills
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies Dreamweaver software to combine text and graphics to create, edit, and manage web sites. Students must know HTML and be able to create and edit vector-based and bitmapped graphics. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 72
Web Design and Animation using Flash
3 units; 3 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches Flash techniques used to create web sites and multimedia art with interactivity and motion. Emphasis on well designed, visually integrated web sites using scalable vector graphics, animation, and sound in stand-alone web sites or multimedia presentations. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
DM 74
Animation Illustration Techniques
3 units; 3 hours Lecture, 5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 4 and DM 72 or equivalent skills.
Recommended Preparation: ART 2A or equivalent skills; Eligibility for ENGL 100 and READ 100.
Develops animation illustration techniques using natural and digital media to represent characters, movement, mass, actions/reactions, and perspective in realistic and abstract scenes to create a short original animated story.
Transfer Credit: Transfers to CSU.

DM 76
Design for Web Media
3 units; 3 hours Lecture, 5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 4 and DM 60A and DM 72 or equivalent skills.
Recommended Preparation: DM 70 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Explores the visual design process for web media focusing on design principles and elements, creative problem solving, and online portfolios. Topics include: interactive design and the design process, defining your project, content organization, effective screen design, navigation, interactive controls, visual identity, usability, functionality, and accessibility.
Transfer Credit: Transfers to CSU.

DM 81
Foundations of Game Design
3 units; 3 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: DM 4 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Surveys history, narrative, characters, graphics, design, technology, and ethics of interactive games. Teams explore the interplay of storytelling, imagery, rule systems, and artificial intelligence to develop novel game design storyboards and create interactive games.
Transfer Credit: Transfers to CSU, UC.

DM 101
Fundamentals of Macintosh Operating Systems
3 units; 2 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: CS 1L or DM 1 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Covers the use, installation, and customization of the Macintosh operating system; includes hard disk management, virus control, interfaces, fonts, and sounds.

DM 105
Animation Perspectives
3 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies historic, cultural, and aesthetic aspects of animation from conceptual and practical perspectives; including storytelling, production, media, methods, sound, technologies, trends, and significant producers.

DM 107
Basic Framemaker
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces FrameMaker digital publishing system, widely used by technical writers. Includes document formatting and editing, file management, book building, graphics importing and positioning, tables creation and formatting, hypertext documents, PDF files, and HTML conversion for web publishing.

DM 110
Digital Illustration
3 units; 2 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 104 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

DM 113
Photoshop Techniques II
3 units; 2 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 112 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers advanced Photoshop techniques and topics including: levels and curves, alpha channels, filters, vector masks, lighting effects, and perspective. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.
DM 134A  
Introduction to Video Production using Final Cut Pro  
3 units; 2 hours Lecture, 5 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: DM 1 or equivalent skills.  
Recommended Preparation: DM 4 or equivalent skills; Eligibility for ENGL 100 and READ 100.  
Introduces video production processes and techniques for audio and video capture, editing, and delivery on current media, including the web.

DM 134B  
Intermediate Video Production using Final Cut Pro  
3 units; 2 hours Lecture, 6 hours Laboratory  
Repeatability: May be taken 3 times.  
Prerequisite: DM 134A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Continues studies of the digital video production process at the intermediate level, addressing: story concepts, script, scenes, storyboards, shooting, lighting, effects, editing and DVD authoring. Taught on Macintosh. Adaptable to Windows. Portions of the course may be taught in a Distance-Learning Format.

DM 134C  
Video Projects  
3 units; 3 hours Lecture, 6 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: DM 134B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Concentrates on post-production techniques and new video methods to produce intermediate to advanced interdisciplinary collaborative projects.

DM 135  
Documentary Production  
3 units; 3 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: DM 134B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies documentary video concepts, methods, and production techniques from historical and cultural perspectives to create and produce documentary video projects. May be offered in a Distance-Learning Format.

DM 136  
Web Site Architecture  
3 units; 2 hours Lecture, 6 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: DM 60A or equivalent skills.  
Recommended Preparation: DM 76 or equivalent skills; Eligibility for ENGL 100 and READ 100.  
Introduces web site information architecture history, procedures, methodologies, and production process; covers how information architects design information organization schemes and create structure for web sites, including: form, function, metaphor, navigation, interface, interaction, and visual design.

DM 171  
Intermediate Web Design using Dreamweaver  
3 units; 2 hours Lecture, 6 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: DM 70 or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Uses Dreamweaver software for intermediate web techniques including CSS layouts, advanced templates, and dynamic content. Students must know HTML and be able to create and edit vector-based and bitmapped graphics. Taught on Macintosh. Adaptable to Windows.
Early Childhood Education | 135

DM 173B
Interactive Programming using Flash
3 units; 2 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: DM 173A or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers advanced concepts and techniques of Macromedia Flash
focusing on the programming language ActionScript. Hands-on experience creating multimedia-based Web sites incorporating ActionScript,
sound and graphics. Topics include the programming concepts of variables, operators, conditional statements, loops and functions. Taught on
Macintosh. Adaptable to Windows. Portions of the course will be taught
in a Distance-Learning Format.

DM 190A–ZZ
Special Topics in Digital Media
0.5-4 units; 0.5 hour Lecture or 1.5 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Special Topics in Digital Media are courses designed to offer skill
development and specialized knowledge in digital media, digital publishing and multimedia. The special areas will be announced, described and
given their own course designations and titles in the Schedule of
Classes.

EARLY CHILDHOOD EDUCATION
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Jean Gallagher-Heil, Program Chair, (831) 479-5015
Michele Chao*, For Addl. Information, (831) 477- 3502
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6354 for more information
http://www.cabrillo.edu/programs
*Spanish speaking

Early Childhood Education Occupational
Program
This program provides the student with the course work required by
the State of California Department of Social Services and the Department
of Education Child Development Permit which enables the student to be
employed as a children's center teacher or administrator in a state-funded program, or public or private setting. Contact the Early Childhood
Education Department for an appointment with a faculty program advisor and the counseling office for further program requirements.

Core Courses
ECE 31/131
ECE 32
OR
ECE 142
ECE 51
ECE 53
ECE 53L
ECE 54 & 54L
OR
ECE 168
ECE 135
OR
ECE 163

Units
Child Growth and Development . . . . . . . . . . . . 4
Child, Youth, Family, and Community . . . . . . . 3
Niño, familia, y comunidad . . . . . . . . . . . . . . . 3
Principles of Working with Young Children . . . 3
Introduction to Curriculum for
the Young Child . . . . . . . . . . . . . . . . . . . . . . . . 3
Curriculum Materials Lab . . . . . . . . . . . . . . . . ½
Early Childhood Practicum Lecture & Lab . . . . 5
Child Care Practicum . . . . . . . . . . . . . . . . . . . . 3
Infant & Toddler Program Development . . . . . 4

Advanced Curriculum for the
Young Child . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ECE 146
The Child with Special Needs in the
Child Care Program . . . . . . . . . . . . . . . . . . . . . 2
ECE 150
Early Care and Education . . . . . . . . . . . . . . . . . 1
ECE 152
Anti-Bias Approaches for
Working with Young Children . . . . . . . . . . . . . 3
ECE 156A-L
Special Curriculum Topics . . . . . . . . . . . . . . . . 1
ECE 158
Working with Families . . . . . . . . . . . . . . . . . . . 3
ECE 159
Health, Safety and Nutrition Issues in the
Child Care Setting . . . . . . . . . . . . . . . . . . . . . . 3
ECE 159L
Health Guidelines, First Aid, and
CPR in the Child Care Setting* . . . . . . . . . . . . ½
*ECE 159L is a corequisite for ECE 159 and may be met with proof of
CPR certification.
Associate in Science Degree in Early Childhood Education
General Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 21
Early Childhood Education Core Courses. . . . . . . . . . . . . . . . 32½-36
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9-9½
Total for A.S. Degree in Early Childhood Education
60
Certificate of Achievement in Teaching
Early Childhood Education Core Courses . . . . . . . . . . . . . . . . . . 32½-35½
ENGL 100/1A/1AH/1AMC/1AMCH. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total for Certificate of Achievement
35½-39
Certificate of Achievement in ECE Administration
ECE Certificate of Achievement in Teaching . . . . . . . . . . . . . . 35½-39
ECE 157A Administration & Supervision of Children's Programs . . 3
ECE 157B Administration & Supervision of Children's Programs . . 3
ECE 157C Supervising Adults in the Child Care Setting . . . . . . . . . . 2
Total for Certificate of Achievement
43½-47
California Child Development Permit Certificate of Achievement and
Cabrillo ECE Certificate of Achievement
The Cabrillo and State Certificates of Achievement require 24 units of
ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53, plus six
units of additional specialized course work.


Certificate of Achievement in Anti-Bias Curriculum
The Cabrillo and State Certificate of Achievement require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53, plus six units of additional specialized course work.

ECE 152 Anti-Bias Approaches for Working with Young Children 3
AND (for a combined total of 6 units)
ECE 145 Peace Education in Children’s Literature 1-3
ECE 146 The Child with Special Needs in the Child Care Setting 2
ECE 161A-Z Child Development and Interaction Skills in Early Childhood with focus on anti-bias issues 1-3
ECE 162A-Z Special Topics in Curriculum Development with focus on anti-bias issues 1-3

Certificate of Achievement Children’s Literacy Curriculum
The Cabrillo and State Certificate of Achievement require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53, plus six units of additional specialized course work.

ECE 144A Early Steps to Reading Success I 1
ECE 144B Early Steps to Reading Success II 2
ECE 144C Early Literacy Foundations for Preschool Children 3
ECE 145 Peace Education and Children’s Literature 1-3
ECE 156L Fostering First and Second Language Development 1-3
ENGL 20B Children’s Literature 1-3
ECE 162A-Z Special Topics in Curriculum Development with special focus on literacy and/or language curriculum 1-3

Certificate of Achievement in Curriculum Planning
The Cabrillo and State Certificate of Achievement require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53, plus six units of additional specialized course work.

ECE 163 Advanced Curriculum for the Young Child 3
AND (for a combined total of 6 units)
ECE 145 Peace Education and Children’s Literature 1-3
ECE 156A-L Curriculum for the Young Child 3
ECE 162A-Z Special Topics in Curriculum Development, with focus on a specific curriculum area 1-3
ECE 64 Children’s Art 3

Certificate of Achievement in Infant/Toddler Care
The Cabrillo and State Certificate of Achievement require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53, plus six units of additional specialized course work.

ECE 133 Understanding Infant Development 1
ECE 133L Infant Development and Observation Lab 1-2
ECE 135 Infant and Toddler Program Development 4
ECE 139A-Z Special Topics in Infant/Toddler Development and Care 1-3

Certificate of Achievement in Working with Culturally Diverse Families
The Cabrillo and State Certificate of Achievement require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53, plus six units of additional specialized course work.

ECE 158 Working with Families 3
ECE 152 Anti-Bias Approaches for Working with Young Children 3

Certificate of Achievement in Bilingual Spanish English Teaching
The Cabrillo and State Certificate of Achievement require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53, plus six units of additional specialized course work.

ENGL 100 Elements of Writing 3
SPAN 4 Intermediate Spanish 4
OR
SPAN 17 Elementary Spanish for Spanish Speakers 4

Skills Certificate in Spanish/English Early Childhood Teaching

ECE 31/131 Child Growth and Development 4
ECE 32 Child, Youth, Family, and Community 3
OR
ECE 142 Niño, familia, y comunidad 3
ECE 51 Principles of Working with Young Children 3
ECE 53 Introduction to Curriculum for the Young Child 3

Plus
English competency at ENGL 100 level
AND
Spanish Competency at SPAN 4 level,
OR
Spanish Competency at SPAN 17 level

Total for Skills Certificate 13-17

Early Childhood Education Courses

ECE 31 Child Growth and Development
4 units; 4 hours Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Recommended Preparation: SPAN 16 and; Eligibility for ENGL 100 and READ 100.
Examine development from conception through age 6 in the context of family, social identity, and culture with an emphasis on non-judgmental observation. Focuses on the interaction between biology and environment. Critical, analytical written work is the primary means of evaluation. Writing assignments for ECE 31 differ from those for ECE 131 in scope and complexity. Early in the semester, instructors define the writing assignment requirement for ECE 31 credit and ECE 131 credit. During the add/drop period the student may select either the 31 or 131 option. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. Meets a core course requirement for Social Services Licensing for the California Child Development Permit.
Transfer Credit: Transfers to CSU; UC, with limits: ECE 31, 32, 33 & PSYCH 8 combined: maximum credit-1 course.
ECE 32
Child, Youth, Family, and Community
3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the shaping power of family, peer groups, schools, culture, and socioeconomic class on children and youth. Examines internal functioning of family and society's impact on families. Meets core course requirement for Social Services Licensing, for the California Child Development Permit and for the School-Age Emphasis Permit. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.
Transfer Credit: Transfers to CSU; UC, with limits: ECE 31, 32, 33 & PSYCH 8 combined: maximum credit--1 course

ECE 33
Child Development: School Age and Adolescence
2 units; 2 hours Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: ECE 31 or ECE 131; Eligibility for ENGL 100 and READ 100.
Covers the major theories of development during school-age and adolescence, studying the milestones of physical, social-emotional, and cognitive development in the specific context of today's families and society. Focuses on the developmental changes that characterize the transition from childhood to adulthood. Studies characteristics of these periods that require major shifts in how adults think about and interact with school-age children and adolescents. May be offered in a Bilingual Spanish/English Format.
Transfer Credit: Transfers to CSU; UC, with limits: ECE 31, 32, 33 & PSYCH 8 combined: maximum credit--1 course.

ECE 51
Principles of Working with Young Children
3 units; 3 hours Lecture
Prerequisite: ECE 31 and ECE 131.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies methods by which adults can support the healthy development of preschool children both as individuals and as members of groups. Appropriate for child care professionals and for parents. Assignments require access to young children in group settings. Meets a core course licensing requirement for Social Services Licensing and the California Child Development Permit. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.
Transfer Credit: Transfers to CSU.

ECE 53
Introduction to Curriculum for the Young Child
3 units; 3 hours Lecture
Corequisite: ECE 53L ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines a teacher's role in supporting learning and development in young children through age six emphasizing language and literacy, sensory learning, art and creativity, math, and the essential role of play. Meets a core requirement for Social Services Licensing and the Child Development Permit. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.
Transfer Credit: Transfers to CSU.

ECE 53L
Curriculum Materials Lab
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite or Corequisite: ECE 53.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides support, in a lab setting, for students enrolled in ECE 53 to develop, design, and prepare learning materials for use with young children through six years of age.
Transfer Credit: Transfers to CSU.

ECE 54
Early Childhood Education Practicum Lecture
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Prerequisite: ECE 31 or ECE 131; ECE 51 or ECE 53 or ECE 54L or ECE 168; ECE 51 and ECE 53.
Recommended Preparation: COMM 6; Eligibility for ENGL 100 and READ 100.
Explores the relationship between theory and practice in a developmental classroom setting to support supervised student teaching for ECE students teaching children under the age of six. Focus is on the competencies based on the Associate Teacher level of the California Child Development Permit.
Transfer Credit: Transfers to CSU.

ECE 54L
Early Childhood Education Practicum Lab
2-5 units; 6 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ECE 31 or ECE 131; ECE 51 or ECE 53 or ECE 54; ECE 51 and ECE 53.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies principles of classroom organization and management to building healthy, caring relations with and between young children by supporting student teachers under the supervision of a Master Teacher. Focus is based on the Associate Teacher level competencies for the California Child Development Permit.
Transfer Credit: Transfers to CSU.
ECE 64
Children’s Art
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the developmental sequence of children’s art and teaching implications for children 2 to 13 years of age through the exploration of various media. Focuses on using clay, watercolor, tempera, drawing materials, block printing, and collage. Designed for preschool teachers, elementary teachers, and parents.
Transfer Credit: Transfers to CSU.

ECE 131
Child Growth and Development
4 units; 4 hours Lecture
Corequisite: ESL 201A and ESL 204R or higher ESL level, when taught in Spanish.
Recommended Preparation: SPAN 16 and; Eligibility for ENGL 100 and READ 100.
Examines development from conception through age 6 in the context of family, social identity, and culture with an emphasis on non-judgmental observation. Focuses on the interaction between biology and environment. Critical, analytical written work is the primary means of evaluation. Writing assignments for ECE 131 differ from those for ECE 31 in scope and complexity. Early in the semester instructors define the writing assignment requirement for ECE 31 credit and ECE 131 credit. During the add/drop period the student may select either the 31 or 131 option. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. Meets a core course requirement for Social Services Licensing and for the California Child Development Permit.

ECE 132
Ages and Stages: An Overview of Early Childhood Development
1-2 units; 1 hour Lecture
Recommended Preparation: SPAN 16 and ESL 201A and ESL 220A or higher ESL level, when taught in Spanish; Eligibility for ENGL 100 and READ 100.
Introduces the development of children from birth through age 6 in a context appropriate for parents, foster parents, childcare providers, and beginning ECE students. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 133
Understanding Infant Development
1-3 units; 1 hour Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines how infants learn, grow, develop relationships, think, learn language, develop physical skills, share culture, and are supported in their development by their families and caregivers. Does not meet Social Services Licensing requirements for infant/toddler care but may be used in conjunction with ECE 135 for the 6-unit Infant-Toddler Specialization Certificate. May be offered in a Bilingual Spanish/English Format.

ECE 133L
Infant Development and Observation Lab
1-2 units; 3 hours Laboratory
Repeatability: May be taken 4 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines infant development through observation and discussion in a lab format in which infants, parents, and caregivers participate together. Focuses on how infants develop social awareness, establish trust, develop physical and cognitive skills. Discussion will also include issues specific to the adult’s life as a parent. Offered for pass/no pass only.

ECE 134
Understanding Toddler Development
1-3 units; 1 hour Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines how toddlers learn and grow, explore and think, learn language, develop physical skills, explore relationships and autonomy, share and learn culture. Studies the role of family in supporting toddler development and how relationships and roles change in the family when babies grow into toddlers. Does not meet Social Services Licensing requirements for infant/toddler care but may be used in conjunction with ECE 135 for the 6-unit Infant-Toddler Specialization Certificate. May be offered in a Bilingual English/Spanish Format.

ECE 134L
Toddler Development and Observation Lab
1-2 units; 3 hours Laboratory
Repeatability: May be taken 4 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines toddler development in a format designed for toddlers, parents, and caregivers to participate together using observation, discussion, and reading. Focuses on how toddlers establish autonomy and develop physical, cognitive, and social skills. Discussion will also include issues specific to the adult’s life as a parent. May be offered in a Bilingual English/Spanish format.
ECE 135
Infant and Toddler Program Development
4 units; 4 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches principles for planning developmentally appropriate and culturally responsive group care of infants and toddlers to promote the development of cognitive, language, emotional, physical, and social skills. Topics include: primary care, individualized scheduling, staffing ratios and group size, responsive care, caregiving as curriculum, environments for care and learning, culturally appropriate caregiving, parent/teacher partnerships, and inclusion of children with special needs. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. Meets requirements for Social Services Licensing for infant/toddler care. May be used in conjunction with ECE 131, 133L, 134, 134L, and ECE 139A-Z for the 6-unit Infant-Toddler Specialization Certificate.

ECE 136
Planning Programs for School Age Children
1-3 units; 1 hour Lecture
Recommended Preparation: ECE 33; Eligibility for ENGL 100 and READ 100.

Focuses on planning, implementing, and evaluating before and after school-care programs that build competence, self-esteem, and community in developmentally appropriate ways in a variety of settings. May be used for the California Child Development School-Age Emphasis Permit.

ECE 137A
Parents in the Cabrillo Children’s Center: Focus on Infants and Toddlers
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 4 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on principles of child development for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on understanding specific developmental stages of five-month to three-year-old children. May be offered in a bilingual Spanish/English format. Open entry/open exit. Students may register through the 12th week.

ECE 137B
Parents in the Cabrillo Children’s Center: Focus on Preschoolers
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 4 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on principles of child development for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on understanding specific developmental stages of three- to five-year-old children. May be offered in a bilingual Spanish/English format. Open entry/open exit. Students may enroll through the 12th week.

ECE 137C
Parents in the Cabrillo Children's Center: Advanced Seminar
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 4 times.
Prerequisite: ECE 137A or ECE 137B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on principles of child development for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on advanced topics of the child in the center and in the home. Open entry/open exit. Students may enroll through the 12th week.

ECE 138A
Communication and Positive Discipline with 2- to 5-Year Olds
1-3 units; 1 hour Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores effective approaches to communication and problem solving with two- to five-year-olds that build self-esteem and protect the dignity of both children and adults. Focuses on encouraging cooperation and setting age appropriate and consistent limits. Appropriate for parents, foster parents, and family childcare home providers. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 138B
Communication and Positive Discipline with School Age Child
1-3 units; 1 hour Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores effective approaches to communication and problem solving with 6- to 12-year-olds that build competence, encourage cooperation, and establish age appropriate limits. Appropriate for after-school caregivers, parents, foster parents, and family childcare providers. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. May be used for the California Child Development School-Age Emphasis Permit.

ECE 139A–Z
Special Topics in Infant/Toddler Development and Care
0.5-3 units; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: ECE 31 or ECE 131 and/or current experience as a caregiver for infants and toddlers; Eligibility for ENGL 100 and READ 100.

Provides intensive study of some aspect of infant and/or toddler development for parents, caregivers, and personnel in childcare programs. Course content will vary with each offering, as will prerequisites. May be used in conjunction with ECE 135 for the 6-unit Infant-Toddler Specialization Certificate. May be offered in Bilingual Spanish/English Format.
ECE 142
Niño, familia, y comunidad
3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the influence of family, peer groups, school, culture, and socioeconomic class on children and youth. Examines internal family dynamics and the impact on the family of social mores and institutions. Meets a core course licensing requirement for Social Services Licensing and Child Development Permit requirements. May also be taught in a Bilingual Spanish/English Format.

ECE 144A
Early Steps to Reading Success I
1 unit; 1 hour Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.
Provides theoretical framework and practical strategies for preparing young children to become successful writers and readers. Topics include: developmental continuum of emergent literacy; the role of expressive language; how play supports literacy development; and how to select children’s books. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 144B
Early Steps to Reading Success II
2 units; 2 hours Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: ECE 144A; Eligibility for ENGL 100 and READ 100.
Teaches strategies to create a classroom that supports the development of reading and writing in young children through age-appropriate learning outcomes and goals that meet the State of California guidelines for Early Literacy. Topics will include: “scaffolding” language curriculum; connecting play to language enrichment; connecting literacy curriculum to children's emergent ideas; developing skills to teach shared reading, independent reading, book handling, phonemics, alphabetic learning, and emergent writing. Focus on building a literacy program based on the child’s home culture and language while working with parents to support their children’s emergent literacy. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 144C
Early Literacy Foundations for Preschool Children
3 units; 3 hours Lecture
Prerequisite: Completion of 12 core units (ECE 31 or 131; ECE 32 or 142; ECE 51, and ECE 53) and currently working as a teacher/caregiver in a program for preschool age children.
Corequisite: ESL 201A or ESL 201B or ESL 220A or ESL 220B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on using the SEEDS approach to help children, 3 to 5 years old, develop emergent literacy skills using a “Sensitive, Encouraging, Educating, and Demonstrating” teaching approach. Emphasizes methods to enhance children’s vocabulary and conversation; print, book, and letter knowledge; and phonological awareness. Course includes: classroom, lab and field experience. May be offered in a Bilingual Spanish/English Format.

ECE 145
Peace Education and Children’s Literature
1-3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Utilizes children’s literature to support peace education curriculum for young children. Focuses on the strands of the Peace Education Library: development of self esteem and connection to others; joy in human diversity; love and care of nature; imagination and delight; creative conflict resolution and a sense of justice; and global awareness.

ECE 146
The Child with Special Needs in the Child Care Program
2 units; 2 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines issues and practices that support all children, teachers, and parents in creating an inclusive program for children with special needs. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 147
Creating Healthy Adult Relationships in the Child Care Setting
1-3 units; 1 hour Lecture
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on adult/adult relationships in the child care and education setting including effective communication, relationship maintenance, and conflict resolution strategies with staff and parents. May be offered in a Bilingual Spanish/English Format.
ECE 150  
Early Care and Education  
1 unit; 1 hour Lecture  
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explores early childhood professions including: types of programs and credentials, history, ethics, and socio-political context, and beginning preparation for employment. May also be offered in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 152  
Anti-Bias Approaches for Working with Young Children  
3 units; 3 hours Lecture  
Prerequisite: ECE 32 or ECE 132.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Teaches approaches that help young children and the adults who care for them to embrace human diversity, recognize social bias, and take action on their own and others’ behalf. Used in conjunction with ECE 158 for the Specialization Certificate in Working with Culturally Diverse Families.

ECE 156A  
Curriculum for the Young Child: Life Science  
1-3 units; 1 hour Lecture  
Repeatability: May be taken 2 times.  
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.  
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.  
Studies developmentally appropriate practices for planning a curriculum for young children around the plant and animal life in our environment, based on ecological and scientific principles. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156B  
Curriculum for the Young Child: Physical Science  
1-3 units; 1 hour Lecture  
Repeatability: May be taken 2 times.  
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.  
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.  
Studies developmentally appropriate practices for creating curriculum for young children exploring the physical world. Topics may include: water, electricity, magnetism, and elements of basic physics. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156C  
Curriculum for the Young Child: Social Knowledge  
1-3 units; 1 hour Lecture  
Repeatability: May be taken 2 times.  
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.  
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.  
Explores social knowledge as it manifests itself in young children’s natural interests and in their emerging understanding of: self-concept; valuing diversity; interdependency of humans; cultures and the similarities and diversity of people everywhere. This class may explore curriculum themes such as: “food and cooking”, “community workers”, “families.” May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156D  
Large Motor and Movement Curriculum  
1 unit; 1 hour Lecture  
Repeatability: May be taken 2 times.  
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies movement and large motor activities appropriate for the development of children’s coordination and sense of rhythm. Explores use of both the classroom and the outdoors as environments for large muscle development. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156E  
Exploring Music with the Young Child  
1-3 units; 1 hour Lecture  
Repeatability: May be taken 2 times.  
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.  
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.  
Studies appropriate developmental practices for incorporating music with young children including singing, chanting, and making music. Demonstrates methods for finding and recognizing developmentally appropriate songs and chants and developing a resource file. Appropriate for teachers, caregivers, and parents. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.
ECE 156F
Teaching Creative Movement to Young Children
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.
Studies appropriate practices for creative movement and body awareness experiences for children 2 to 12 years of age, emphasizing spontaneity and expression. Examines the effect of creative movement on both artistic and cognitive development. Appropriate for teachers, child care providers, and parents. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156G
Circle Time Activities
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.
Introduces concepts and strategies for choosing and presenting developmentally appropriate circle times with young children. May include music, creative movement, games, group problem solving, language activities, and science experiences, so that children will participate and learn with interest and delight. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156H
Cooking with Young Children
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.
Studies developmentally appropriate practices for cooking with young children to support sensory/motor learning; math and science concepts; emergent literacy and language, in culturally relevant curriculum. Learn how to plan and prepare a child-safe cooking environment; how to create healthy and nutritious, simple, good tasting recipes; and how to implement a cooking curriculum using everyday utensils and appliances. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156I
Persona Dolls in Curriculum for Young Children
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.
Studies developmentally appropriate practices for incorporating persona dolls to support children’s concept development, language, social skills, problem solving skills, and to help children explore and understand humans’ similarities and differences. Students will create a persona doll and learn culturally and age-appropriate activities and stories that enhance creativity and teach pro-social values.

ECE 156J
Superhero and Weapon Play
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.
Studies developmentally appropriate practices for understanding and responding to young children’s superhero and weapon play. Focuses on the influence of culture, gender, role expectations, and children’s development on play. Studies strategies for guiding play while emphasizing positive aspects and guidance of superhero and weapon play.

ECE 156L
Fostering First and Second Language Development
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Corequisite: ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53; Eligibility for ENGL 100 and READ 100.
Presents practical ways for teachers and parents to support the language development of young children in bilingual or multilingual settings through curriculum development and authentic assessment. Focuses on similarities and differences between first and second language acquisition; the relationship of language development to beginning literacy; and on the impact of partnerships between school and family on children’s language development and sense of self. May be offered a Bilingual Spanish/English Format.
ECE 157A
Administration and Supervision of Children's Programs
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: Completion of 12 core units (ECE 31 or 131; 32 or 142; 51 and 53) for licensing or permit requirement and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents an overview of quality programs for children, with emphasis on: regulations and policy; promotion and enrollment; personnel; financial management; space and equipment; and relationships with families. Meets the requirement for three units in Program Administration for Social Services Licensing and three of the required six units for the Site Supervisor level of the California Child Development Permit Matrix.

ECE 157B
Administration and Supervision of Children's Programs
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: Completion of 12 core units (ECE 31 or 131; 32 or 142; 51 and 53) for licensing or permit requirement and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Emphasizes the leadership role of the director in the development of program and personnel evaluation procedures that reflect the goals of a program. Topics include goal-setting, team-building, assessment systems, record keeping, and cost-benefit analysis. Meets the requirements for three units Program Administration for Social Services Licensing and three of the required six units for the Site Supervisor level of the California Child Development Permit.

ECE 157C
Supervising Adults in the Childcare Setting
2 units; 2 hours Lecture
Prerequisite: Completion of 12 core units (ECE 31 or 131; 32 or 142; 51 and 53) for licensing or permit requirement and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores methods and principles of supporting and supervising adults in early childhood settings, emphasizing the role of experienced teachers mentoring new teachers. Required for entry into the Mentor Teacher program. Meets the Adult Supervision course requirement for the California Child Development Permit.

ECE 158
Working With Families
3 units; 3 hours Lecture
Prerequisite: ECE 51 or concurrent enrollment.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on building strong partnerships between teachers and families using the family-centered care model: two-way communication and decision making; honoring diversity; acknowledging family and teacher expertise; and building networks of support. Studies the benefits of the partnership for children, families, teachers, and programs, and emphasizes the development of the specific competencies for parent/teacher communications both written and verbal, problem-solving, parent meetings, parent/teacher conferences, work days, and co-ops. Also appropriate for family childcare home providers. May be offered in a Bilingual Spanish/English Format as part of Spanish/English Bilingual Specialization Certificate. Used in conjunction with ECE 152 for the Specialization Certificate in Working with Culturally Diverse Families.

ECE 159
Health, Safety, and Nutrition Issues in the Child Care Setting
3 units; 3 hours Lecture
Corequisite: ECE 159L OR current CPR and First Aid Certification by the American Red Cross. ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches essential information and skills regarding the health, safety, and nutritional needs of young children in a format appropriate for teachers, childcare providers, parents, foster parents, and others who care for young children. Meets Health and Safety requirement for Social Services and Foster Parent Licensing. May be offered in Spanish as part of Spanish/English Bilingual Specialization Certificate.

ECE 159L
Health Guidelines, First Aid, and CPR in the Child Care Setting
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 4 times.
Prerequisite: ECE 159 or concurrent enrollment.
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides hands-on training for parents, teachers, and caregivers in infant, child, and adult CPR and first aid in order to obtain certification by the American Red Cross. May be offered in Spanish as part of Spanish/English Bilingual Specialization Certificate.
ECE 161A-Z  
**Child Development and Interaction Skills in Early Childhood**

0.5-3 units; 0.5 hour Lecture  
Repeatability: May be taken 4 times.  
Corequisite: ESL 201A or higher ESL level when taught in Spanish.  
Recommended Preparation: ECE 31 or ECE 131, current experience as a caregiver for children; Eligibility for ENGL 100 and READ 100.

Offers a series of courses in selected areas of child development with an emphasis on interaction, communication, and guidance skills for those who care for children. Course content will vary with each offering, as will prerequisites. Topics may include: infancy development, preschool development, communication skills, and family dynamics. May be offered in a Bilingual Spanish/English Format.

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ECE 162A-Z  
**Curriculum Development in Programs for Young Children**

0.5-4 units; 0.5 hour Lecture  
Repeatability: May be taken 4 times.  
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.  
Recommended Preparation: ECE 31 or ECE 131 and ECE 52 and/or current experience as a caregiver for children; Eligibility for ENGL 100 and READ 100.

Offers a series of courses focusing on selected aspects of child development with an emphasis on specific curriculum topics. Course content will vary with each offering, as will prerequisites. Examples of topics include: music, math, language, pre-reading and literacy, science, art, and health. Appropriate for teachers, caregivers, and personnel of preschool and childcare programs. May be offered in a Bilingual Spanish/English Format.

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ECE 163  
**Advanced Curriculum for the Young Child**

3 units; 3 hours Lecture  
Prerequisite: ECE 31 or ECE 131 and ECE 53 and ECE 53L.  
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores theoretical and practical considerations for developing integrated and emergent curriculum inspired by Reggio Emilia programs and aligned with early learning content, standards and assessments. May also be offered in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

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ECE 168  
**Child Care Practicum**

0.5-4 units; 1.5 hours Laboratory  
Repeatability: May be taken 4 times.  
Prerequisite: ECE 31 or ECE 131 ECE 51 and  
Corequisite: ECE 51 or ECE 53.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Offers resources and support for student teachers and interns engaged in field experience under the supervision of a Master or Mentor Teacher at designated child development programs.

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ECE 170  
**Competencies of the Child Care Professional**

0.5-3 units; 0.5 hour Lecture  
Repeatability: May be taken 4 times.  
Prerequisite: ECE 31 or ECE 131.  
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides an opportunity for experienced child care professionals to work with a trainer on program assessment, reflective practice, professional development, and leadership skills. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

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ECE 171A-Z  
**Issues for Family Day Care Providers**

0.5-2 units; 0.5 hour Lecture  
Repeatability: May be taken 4 times.  
Corequisite: ESL 201A or ESL 220A or higher ESL level when taught in Spanish.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Offers a series of courses designed for family childcare home providers to plan or revitalize their programs. Course content will vary with each offering, as will prerequisites. Topics may relate to: child development; environments; curriculum, partnerships with families; professional development. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

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ECE 230  
**Basic Skills of Preparing Child Observations and Assessments**

0.5 unit; 1 hour Laboratory  
Repeatability: May be taken 2 times.  
Recommended Preparation: ESL 201A when taught in Spanish, concurrent enrollment in or ESL 220A or higher ESL level.

Teaches practical approaches for child observation and assessment, developing writing skills necessary for documenting child observations, parent interviews, child development studies or family history papers. Each section will relate to a specific Early Childhood Education course. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.
ECE 231
Introduction to Child Development
1-3 units; 1 hour Lecture
Recommended Preparation: ESL 201A when taught in Spanish, concurrent enrollment in or ESL 220A or higher ESL level.; Eligibility for ENGL 100 and READ 100.

Presents, through observation, written documentation, and analysis of children’s behavior, the basic concepts of child development from birth through age six. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECONOMICS
Human Arts and Social Sciences
Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Economics Majors
Economics is concerned with the way individuals and societies allocate scarce resources, how resources are turned into the things people want, and how those things are distributed. Any situation requiring choice among competing needs can be viewed as an economic problem. Economics courses enable students to study the way households and businesses make these choices (microeconomics), the way governments make these choices and the consequences of these choices for the nation as a whole (macroeconomics). The curriculum also addresses international trade, social welfare, money and banking, taxation, and environmental protection.

Career opportunities: An economics major with an A.A. degree generally transfers to a four-year institution to complete a Bachelor’s degree. Economics graduates at the Bachelor’s level are qualified for a variety of positions with government, industry, and public interest organizations and they are well prepared to enter a graduate program in economics, business, journalism, law, or public policy. Teaching at the two-year college level is an option if a Master’s degree is obtained. An economist can obtain the Ph.D. Degree, which may lead to research and/or teaching at the university level, or basic research in government, industry, or public interest organizations. Nearly every four-year college and university offers an economics major.

MODEL PROGRAM FOR ECONOMICS
The following model program fulfills requirements for the A.A. Degree in Economics at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 13</td>
<td>Finite Mathematics</td>
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<tr>
<td>MATH 18</td>
<td>Business Calculus</td>
<td>3</td>
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<td>OR MATH 5A</td>
<td>Analytic Geometry and Calculus I</td>
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</tr>
<tr>
<td>OR MATH 5B</td>
<td>Analytic Geometry and Calculus II</td>
<td>4</td>
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<tr>
<td>MATH 12/12H</td>
<td>Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>OR BUS 9</td>
<td>Business Statistics</td>
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</table>

Plus one course chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 1B</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ANTHR 2</td>
<td>Introduction To Anthropology: Cultural</td>
<td>3</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
<td>4</td>
</tr>
<tr>
<td>ES 10</td>
<td>Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>FIN 10</td>
<td>Introduction to Investments</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>Analytic Geometry and Calculus III</td>
<td>4</td>
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<tr>
<td>MATH 6</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 7</td>
<td>Introduction to Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 6</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 12</td>
<td>Introduction to Cognitive Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1/1H</td>
<td>Introduction To Sociology: Understanding Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2/2H</td>
<td>Contemporary Social Problems</td>
<td>3</td>
</tr>
</tbody>
</table>

Associate in Arts Degree in Economics

General Education .................................................. 30
Economics Core Courses ......................................... 15-18
Additional Approved Course .................................. 3-4
Other Electives (any course numbered 1-199) ............. 8-12
Total for A.A. Degree in Economics ......................... 60
Economics Courses

ECON 1A
Introduction to Macroeconomics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces national income accounting, banking, and Federal Reserve System, determinants of the level of unemployment and inflation, examination of economic growth and business cycles, and government economic policy.
Transfer Credit: Transfers to CSU; UC.

ECON 1B
Introduction to Microeconomics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces markets, demand and consumer behavior, supply and firm behavior, competition and market power, efficiency and market failure, wages and labor markets, income distribution, and government regulation of markets.
Transfer Credit: Transfers to CSU, UC.

EDUCATION
Human Arts and Social Science

Nancy A. Brown, Division Dean
Division Office, Room 420
Rosemary Brogan, Program Chair, (831) 479-6404
Liberal Studies website: www.cabrillo.edu/ls
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6348 or (831) 479-6297 for more information

Information for Education Majors

Multiple Subject Credential Programs for Elementary School

Teaching: Elementary (Multiple Subject) Teaching Credentials authorize the holder to teach in self-contained classrooms such as classroom setting in most elementary schools. However, a teacher authorized for multiple subject instruction may be assigned to teach in any self-contained classroom (preschool, K-12, or in classes organized primarily for adults). In addition, the holder of a Multiple Subject Teaching Credential may serve in a core or team teaching setting. For more information:

www.ctc.ca.gov/credentials/leaflets.html

Single Subject Credential Programs for Secondary Schools Teaching:
Secondary Teaching (Single Subject) Teaching Credentials authorizes the holder to teach the specific subject(s) named on the credential in departmentalized classes such as those in most middle schools and high schools. However, a teacher authorized for single subject instruction may also be assigned to teach any subject in his or her authorized field at any grade level-preschool, grades K-12, or in classes organized primarily for adults. For more information:

www.ctc.ca.gov/credentials/leaflets.html

Education Specialist Credential Programs Special Education (Education Specialist Instruction) Credentials authorize the holder to teach in the disability areas of specialization such as Mid/Moderate Disabilities, Moderate/Severe Disabilities, Deaf and Hard of Hearing, Visual Impairments, Physical and Health Impairment, and Early Childhood Special Education. One or more of the authorizations may be listed on the document for service in the following settings: Special day classes, Special schools, Home/hospital settings, Correctional facilities, Nonpublic schools, and agencies Resource rooms. For more information:

www.ctc.ca.gov/credentials/leaflets.html

Liberal Studies Transfer Information

The Cabrillo College Liberal Studies transfer program is designed for students who are interested in becoming elementary school teachers in California. The Liberal Studies major is the most common "approved major" for teacher preparation and the major that best prepares students to take the CSET. The program below reflects the courses that enable a student to transfer to a CSU campus completing the common lower division transfer pattern for the Liberal Studies (teacher prep) Major. With careful selection of course work a student may prepare for several universities as well as complete the lower division general education requirements and some of the classroom hours needed to enter a credential program. Additional course work may be required or recommended by the transfer institution. Please see a counselor for assistance. Please see the Cabrillo College Teacher Education web page for more information:

www.cabrillo.edu/academics/education/liberalstudies

MODEL PROGRAM FOR TRANSFER IN LIBERAL STUDIES
Core Courses plus General Education 60-Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 80</td>
<td>American Education in a Changing World</td>
<td>3</td>
</tr>
</tbody>
</table>

CSU Statewide Lower Division Transfer Pattern for Multiple Subject Credential Programs

Area A1, A2, A3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm 1/1H</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A or ENGL 1AH</td>
<td>College Composition</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1AMC</td>
<td>Honors College Composition</td>
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</tr>
<tr>
<td>or ENGL 1AMCH</td>
<td>College Composition: Multicultural Emphasis</td>
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</tr>
<tr>
<td>or ENGL 2 or ENGL 2H</td>
<td>Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 2MC</td>
<td>Honors Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 2MCH</td>
<td>Composition and Critical Thinking: Multicultural Emphasis</td>
<td>3</td>
</tr>
<tr>
<td>or PHILO 49</td>
<td>Introduction to Critical Thinking</td>
<td>3</td>
</tr>
</tbody>
</table>
**Area B1**
A course in Survey of Chemistry and Physics and a course in Survey of Earth Science (no equivalent course at Cabrillo College) .................. 3-4

**Area B2**
BIO 11A General Biology .................. 4

**Area B3**
(BIO 11A) General Biology .................. (0)

**Area B4**
MATH 10 Survey of College Mathematics ...... 3
or
MATH 12/12H Elementary Statistics ............. 4
MATH 15 Number Systems .................. 0

**Area C1**
AH 77 Correlation of the Arts .................. 3
or
MUS 77 Correlation of the Arts .................. 3
or
TA 77 Correlation of the Arts .................. 3

**Area C2**
A survey course in literature that has either a cultural or geographic scope and that covers multiple genres (for example, fiction, poetry, creative non-fiction.) Any Literature course on the GE lists under Humanities C-2 available in the College Catalog with a # symbol indicating multicultural offerings. .................. 3
HIST 2A World History to 1500 ............. 3

**Area D**
HIST 17A* United States History to 1865 ...... 3
or
HIST 17AH* Honors United States History to 1865 ...... 3
or any other U.S. History course*
PS 1* Introduction to Government ............ 3
or
PS 1H* Honors Introduction to Government ........ 3
GEOG 4 World Regional Geography ............ 3

**Area E**
ECE 31 Child Growth and Development ........ 4

*These courses will satisfy 6 units in GE-Breadth Area D and the CSU graduation requirements in United States History, Constitution and American Ideals.

**Education Courses**

**EDUC 80**
**American Education in a Changing World**
3 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An introduction to the teaching profession in the United States that encourages thinking about teaching in new ways. Assumptions about teaching and learning are reexamined by looking at educational philosophies, learning theory, curriculum and diversity in today's classroom. A Service Learning component will be incorporated into the course.

*Transfer Credit: Transfers to CSU, UC.*

**EDUC 120A-Z**
**Special Topics in Education**
1-3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Analyzes special topics in the field of education, including but not limited to such topics as history, philosophy, diversity, differentiated instruction, curriculum, California State standards, teacher preparation examinations, and techniques in effective tutoring. May also include on site experience.

**ENGINEERING**

**Natural and Applied Sciences Division**
Wanda Garner, Division Dean
Division Office, Room 701
Jo-Ann Panzardi, Program Chair, (831) 479-6497
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

**Information for Engineering Majors**

Engineers are the people who design and build the systems, structures and products that make the world run. Engineers are employed in research, development, design, construction, manufacturing and operations of technical projects related to almost all aspects of modern life, including the environment, communications, transportation, food production, medicine and health, space exploration, housing and energy.

Cabrillo College offers a two-year lower division engineering program that prepares students for transfer with full junior standing to colleges and universities in California and across the United States. The first two years of the engineering curriculum at all colleges and universities are similar with specialization commencing in the junior year in branches such as aerospace, civil, chemical, computer, electrical, environmental, industrial, materials and mechanical engineering.

An engineering student at Cabrillo does not need to select a major branch of engineering study until applying for transfer to a college or university; however, some of the course requirements for transfer depend on the student's intended major and the transfer university. Completion of the lower division core courses below is essential in facilitating progress as an upper division engineering transfer student.
It is important that engineering students meet with the engineering transfer counselor or Engineering Department for specific requirements for transfer.

**MODEL PROGRAM FOR ENGINEERING**

The model program fulfills requirements for the A.S. Degree in Engineering at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

This program has been adopted by the Engineering Liaison Council of the California Intersegmental Council.

### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 5</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>5</td>
</tr>
<tr>
<td>*ENGR 25</td>
<td>4</td>
</tr>
<tr>
<td>†ENGR 35</td>
<td>3</td>
</tr>
<tr>
<td>††ENGR 45</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5A</td>
<td>4</td>
</tr>
<tr>
<td>MATH 5B</td>
<td>4</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>5</td>
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<tr>
<td>PHYS 4B</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4C</td>
<td>5</td>
</tr>
<tr>
<td>ENGR 1A</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 10</td>
<td>2</td>
</tr>
<tr>
<td>†ENGR 26</td>
<td>1</td>
</tr>
<tr>
<td>†MATH 6</td>
<td>3</td>
</tr>
<tr>
<td>††PHYS 4D</td>
<td>3</td>
</tr>
</tbody>
</table>

The following core courses are required for transfer for most engineering majors and by transfer universities.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1B</td>
<td>5</td>
</tr>
<tr>
<td>CS 11</td>
<td>4</td>
</tr>
<tr>
<td>CS 19</td>
<td>4</td>
</tr>
<tr>
<td>†ENGR 1A</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 10</td>
<td>2</td>
</tr>
<tr>
<td>†ENGR 26</td>
<td>1</td>
</tr>
<tr>
<td>†MATH 6</td>
<td>3</td>
</tr>
<tr>
<td>††PHYS 4D</td>
<td>3</td>
</tr>
</tbody>
</table>

*Not required for electrical and computer engineering majors at most transfer universities.

† = spring offering; †† = fall offering

### Associate in Science Degree in Engineering

<table>
<thead>
<tr>
<th>Component</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>21</td>
</tr>
<tr>
<td>Core courses (any of the courses above; at least 12 units of ENGR courses)</td>
<td>39</td>
</tr>
</tbody>
</table>

Total for A.S. Degree in Engineering 60

**Engineering Courses**

### ENGR 1A

**Surveying**

4 units; 3 hours Lecture, 5 hours Laboratory

Prerequisite: MATH 4 or High School Trigonometry.

Recommended Preparation: ENGR 25 (may be taken concurrently); Eligibility for ENGL 1A/1AH/1AMC/1AMCH.

Applies theory and principles of plane surveying: office computations and design; operation of surveying field equipment; and production of engineering plans/maps. Topics include distances, angles, and directions; differential leveling; traversing; property/boundary surveys; topographic surveys/mapping; volume/earthwork; horizontal and vertical curves; land description techniques; construction applications; and GPS. Extensive field work using tapes, levels, transits, theodolites, total stations, and GPS. Fall semesters only.

**Transfer Credit:** Transfers to CSU, UC.

### ENGR 5

**Engineering as a Profession**

2 units; 2 hours Lecture, 1 hour Laboratory

Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.

Provides information to evaluate the engineering profession as a personal career choice. Explores the branches of engineering, the functions of an engineer, and the industries in which they work. Presents an introduction to the methods of engineering analysis, design and problem solution emphasizing the interface of the engineer with society and engineering ethics. Explains the engineering education process and explores effective strategies for students to reach their full academic potential.

**Transfer Credit:** Transfers to CSU, UC.

### ENGR 10

**Engineering Communication**

2 units; 2 hours Lecture, 2 hours Laboratory

Prerequisite: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.

Develops written, computer and oral communication skills in analyzing and presenting data in solving engineering problems. Builds analysis, computation, teamwork and presentation skills; teaches writing and organizing principles for effective technical writing; and utilizes computer applications to create and present engineering projects.

**Transfer Credit:** Transfers to CSU; UC, with conditions: In order for transfer credit to be granted for ENGR 10, ENGR 5 must also be taken.

### ENGR 15

**Circuits**

4 units; 3 hours Lecture, 5 hours Laboratory

Prerequisite: PHYS 4B and MATH 7 (may be taken concurrently).

Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.

Analyzes the behavior of currents and voltages in electrical circuits containing resistive, capacitive, inductive passive elements, along with op-amps interconnected to voltage and current sources. Basic circuit laws, network theorems and computer analysis are used to solve DC steady state circuits, RC, RL, and RLC circuit transients and sinusoidal AC steady state circuits. Power and energy analysis is performed throughout the course. Spring semester only.

**Transfer Credit:** Transfers to CSU, UC.
ENGR 25
Graphics and Design
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: MATH 4.
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Applies principles of engineering drawing in visually communicating engineering designs using freehand sketching, instrument drawing, and computer-aided drafting/design using AutoCAD. Topics include orthographic and pictorial drawings; descriptive geometry; detail and assembly drawings; dimensioning and tolerancing; and scales. Acquire an in-depth understanding of the engineering design process and improve creativity in solving engineering problems.
Transfer Credit: Transfers to CSU, UC.

ENGR 26
Solid Modeling
1 unit; 1 hour Lecture, 4 hours Laboratory
Prerequisite: ENGR 25.
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Applies principles of solid modeling using Pro/Engineer in engineering design and the production of engineering drawings. Construct parts, solid models, and assemblies. Plot three-dimensional drawings and dimensioned orthographic drawings. Produce engineering documentation packages. Spring semester only.
Transfer Credit: Transfers to CSU, UC.

ENGR 35
Statics
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: PHYS 4A and MATH 5C (may be taken concurrently).
Recommended Preparation: ENGR 25; Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Analyzes two- and three-dimensional force systems on rigid bodies in static equilibrium. Vector and scalar analysis methods address forces acting on rigid bodies, trusses, frames, machines, and beams. Topics include distributed force systems, friction, shear and bending moment diagrams; centroids/center of mass, moment of inertia. Additional topics include Mohr’s circle and virtual work. Spring semester only.
Transfer Credit: Transfers to CSU, UC.

ENGR 45
Engineering Materials
3 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: PHYS 4A and CHEM 1A.
Recommended Preparation: ENGR 10 and CHEM 1B; Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Presents the properties and performance of engineering materials and their relationship to the internal structure of materials. Applies the concepts of material science and engineering in testing materials using laboratory testing equipment. Utilizes analysis techniques in selecting the appropriate materials to meet engineering design criteria. Engineering materials include metals, polymers, ceramics, composites, and semiconductors. Fall semester only.
Transfer Credit: Transfers to CSU, UC.

ENGR 99A–Z
Special Topics in Engineering
0.5-5 units; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Selected topics in Engineering not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.
Transfer Credit: Transfers to CSU.

ENGINEERING TECHNOLOGY
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Division Office, Room 701
Gary Marcoccia, Program Chair, (831) 479-5705
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
www.cabrillo.info

Engineering Technology
Occupational Program
The Engineering Technology A.S. Degree/Certificate Program has been designed under the guidance of an industry advisory board for students who have a strong interest in hands-on technical work based in electronics, manufacturing, and design drafting. Employment opportunities await our graduates locally, in the Silicon Valley, and globally. Upon entering the workforce, our graduates perform duties requiring a combination of the theoretical knowledge of an engineer and the skills of a craftsperson. The following are a sampling of the many fields our graduates qualify for: engineering technician, design drafting, manufacturing, electronics, and computer animation. The Engineering Technology Department at Cabrillo College offers an A.S. Degree and a Certificate of Achievement, as well as five Skills Certificate options. Additionally, several courses carry transfer credit to baccalaureate degree granting institutions.

Note: We strongly recommend CS 1 (Introduction to Computers and Computer Technology) and CS 1L (Lab: Introduction to Computers and Computer Technology) for all students enrolling in computer-based Engineering Technology courses. Please refer to the Cabrillo College Catalog descriptions of these courses to determine if you possess equivalent knowledge.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 31</td>
<td>Introduction to Electronic Circuit and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schematic Design</td>
<td></td>
</tr>
<tr>
<td>ETECH 41</td>
<td>Advanced AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 42</td>
<td>Computer Aided Manufacturing I</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 126</td>
<td>3D Solid Modeling and Rendering</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>Introduction to Pro/Engineer</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 132</td>
<td>Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 138</td>
<td>Electromechanical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 145</td>
<td>ANSI Standards in Mechanical Drafting</td>
<td>3</td>
</tr>
</tbody>
</table>
Approved Program Electives

Approved Program Electives

BUS 20 Introduction to Business ................. 3
CEM 155 Blueprint Reading .................... 3
CIS 172 Introduction to Operating Systems ........ 4
DM 2 Introduction to Digital Publishing
using InDesign ........................................ 3
DM 4 Digital Graphics using
Photoshop and Illustrator .......................... 3
ETECH 121 Introduction to 3D Studio Max. ........ 3
ETECH 122 Intermediate 3D Studio Max ............ 3
ETECH 125 3D Wireframe and Surface Modeling ...... 3
ETECH 131 Intermediate Pro/Engineer .............. 3
ETECH 135 Survey of Electronics Technology ....... 3
ETECH 140 Introduction to Maya .................. 3
ETECH 150 ETECH Careers and Employment Preparation .. 2
ETECH 199C Career Work Experience Education .. ½-4

Associate in Science Degree in Engineering Technology

Associate in Science Degree in Engineering Technology

General Education ........................................ 21
Engineering Technology Core Courses .............. 27
Approved Program Electives ........................ 5
Electives (any course numbered 1-199) ............ 7
Total for A.S. Degree in Engineering Technology ... 60

Certificate of Achievement in Engineering Technology

Certificate of Achievement in Engineering Technology

Engineering Technology Core Courses .............. 27
One of the following:
ENGL 100/1A/1AH/1AMC/1AMCH, or CABT 157 .......... 3
Total for Certificate of Achievement in Engineering Technology ... 30

ENGINEERING TECHNOLOGY SKILLS CERTIFICATES

ENGINEERING TECHNOLOGY SKILLS CERTIFICATES

Architecture Drafting and Design Skills Certificate

Architecture Drafting and Design Skills Certificate

ETECH 24 Introduction to AutoCAD ................ 3
ETECH 60 Architecture I ................................ 3
ETECH 61 Architecture II ............................. 3
ETECH 62 Architecture III ............................ 3
ETECH 71 ArchiCAD I .................................... 3
Total Architecture Drafting and Design Skills Certificate 15

Computer Aided Drafting and Design Skills Certificate

Computer Aided Drafting and Design Skills Certificate

ETECH 24 Introduction to AutoCAD ................ 3
ETECH 41 Advanced AutoCAD ........................ 3
ETECH 42 Computer Aided Manufacturing I ........ 3
ETECH 125 3D Wireframe and Surface Modeling ...... 3
Total Computer Aided Drafting and Design Skills Certificate 12

Civil/Survey Drafting Skills Certificate

Civil/Survey Drafting Skills Certificate

*ENGR 1A Surveying (fall only) ..................... 4
ETECH 24 Introduction to AutoCAD ................ 3
ETECH 110 Civil and Land Development CAD ........ 3
Total Civil/Survey Drafting Skills Certificate 10
*Requires Trigonometry as a prerequisite

Computer Animation Skills Certificate

Computer Animation Skills Certificate

ETECH 24 Introduction to AutoCAD ................ 3
ETECH 126 3D Solid Modeling and Rendering ......... 3
ETECH 140 Introduction to Maya .................... 3
ETECH 141 Intermediate Maya ...................... 3
Total Computer Animation Skills Certificate 12
If desired, one required Computer Animation course may be replaced with one of the following (listed courses may require the completion of prerequisites):

DM 2 Introduction to Digital Publishing
using InDesign ........................................ 3
DM 4 Digital Graphics using
Photoshop and Illustrator .......................... 3
ETECH 121 Introduction to 3D Studio Max ............ 3
ETECH 130 Introduction to Pro/Engineer .............. 3
ETECH 131 Intermediate Pro/Engineer ................ 3
ETECH 140 Introduction to Maya .................... 3
ETECH 131 Intermediate Pro/Engineer .............. 3

Civil/Survey Drafting Skills Certificate

Civil/Survey Drafting Skills Certificate

*ENGR 1A Surveying (fall only) ..................... 4
ETECH 24 Introduction to AutoCAD ................ 3
ETECH 110 Civil and Land Development CAD ........ 3
Total Civil/Survey Drafting Skills Certificate 10
*Requires Trigonometry as a prerequisite

Computer Aided Drafting and Design Skills Certificate

Computer Aided Drafting and Design Skills Certificate

ETECH 24 Introduction to AutoCAD ................ 3
ETECH 41 Advanced AutoCAD ........................ 3
ETECH 42 Computer Aided Manufacturing I ........ 3
ETECH 125 3D Wireframe and Surface Modeling ...... 3
Total Computer Aided Drafting and Design Skills Certificate 12
*Requires MATH 153 or high school geometry as prerequisite
If desired, one required Computer Aided Drafting and Design course may be replaced with one of the following (listed courses may require the completion of prerequisites):

DM 2 Introduction to Digital Publishing
using InDesign ........................................ 3
DM 4 Digital Graphics using
Photoshop and Illustrator .......................... 3
ETECH 121 Introduction to 3D Studio Max ............ 3
ETECH 130 Introduction to Pro/Engineer .............. 3
ETECH 131 Intermediate Pro/Engineer ................ 3
ETECH 140 Introduction to Maya .................... 3
ETECH 145 ANSI Standards in Mechanical Drafting .. 3

Computer Animation Skills Certificate

Computer Animation Skills Certificate

ETECH 24 Introduction to AutoCAD ................ 3
ETECH 126 3D Solid Modeling and Rendering ......... 3
ETECH 140 Introduction to Maya .................... 3
ETECH 141 Intermediate Maya ...................... 3
Total Computer Animation Skills Certificate 12
If desired, one required Computer Animation course may be replaced with one of the following (listed courses may require the completion of prerequisites):

DM 2 Introduction to Digital Publishing
using InDesign ........................................ 3
DM 4 Digital Graphics using
Photoshop and Illustrator .......................... 3
DM 6 Advanced Digital Publishing
using InDesign .......................................... 3
DM 8 Design for Digital Publishing .................. 3
ETECH 125 3D Wireframe and Surface Modeling ...... 3
ETECH 130 Introduction to Pro/Engineer .............. 3
ETECH 131 Intermediate Pro/Engineer .............. 3
Engineering Technology Courses

ETECH 24
Introduction to AutoCAD
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.

Introduces the fundamental operating principles of AutoCAD drafting/design software. Uses AutoCAD for Windows to create and revise two-dimensional drawings. This is a foundation course that can lead to advanced study in a variety of drafting and design fields.
Transfer Credit: Transfers to CSU, UC.

ETECH 26
CAD System Customizing
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.

Covers advanced applications of computer aided design systems, emphasizing customizing these systems to meet special applications. Topics include symbol libraries, menus, macros, and internal programming languages.
Transfer Credit: Transfers to CSU.

ETECH 31
Introduction to Electronic Circuit and Schematic Design
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.

Presents the use of computer aided drafting software for the design of electronic diagrams, including schematics, wiring diagrams, block diagrams, and printed circuit fabrication drawings. Includes instruction on symbol creation, symbol library maintenance and hands-on basic electronics.
Transfer Credit: Transfers to CSU.

ETECH 41
Advanced AutoCAD
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ETECH 24.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a second level AutoCAD and first level mechanical drafting course. Includes an introduction to the computer aided design of mechanical drawings, detailing the fabrication of mechanical parts, technical sketching, multi-view orthographics, section views, auxiliary views, 3D modeling, dimensioning, and an introduction to computer aided manufacturing.
Transfer Credit: Transfers to CSU.

ETECH 42
Computer Aided Manufacturing I
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ETECH 24.
Recommended Preparation: ETECH 24; Eligibility for ENGL 100 and READ 100.

Covers the basics of CNC G code program creation/editing in conjunction with the use of CAM software. Includes three-axis mill programming; creating part geometry, defining tools and tool paths, and using post-processors.
Transfer Credit: Transfers to CSU.
ETECH 60
Architecture I
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an overview of the field of architectural drafting and design for those interested in pursuing this occupational area of study. Includes an introduction to the professional fields of architecture, engineering, city planning, and landscape architecture. The language of architecture and the historical development of construction principles will also be emphasized.
Transfer Credit: Transfers to CSU, UC.

ETECH 61
Architecture II
3 units; 2.5 hours Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents an introduction to architectural drafting/design with an emphasis on drafting construction details, and the application of construction processes/materials. AutoCAD computer aided drafting software will be introduced as a means of creating simple design projects.
Transfer Credit: Transfers to CSU.

ETECH 62
Architecture III
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers intermediate topics in AutoCAD-based architectural drafting techniques/practices, including wood construction methods/processes, preparation of construction documents, site plans, floor plans, sections, elevations, and specifications.
Transfer Credit: Transfers to CSU.

ETECH 71
ArchiCAD I
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 3 times.
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.
Introduces the use of ArchiCAD architectural design software with instruction focused on the basic concepts and tools needed to create an object oriented 3D virtual model. Also included is an introduction to a variety of ArchiCAD’s output capabilities. This is the first of a two-part ArchiCAD course series.
Transfer Credit: Transfers to CSU.

ETECH 121
Introduction to 3D Studio Max
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 3 times.
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.
Presents an introduction to 3D Studio Max, a popular computer animation software which allows for the presentation of animated mechanical and architectural designs. Includes an introduction to 3D model construction, rendering, and animation using camera, target, and object motion.

ETECH 122
Intermediate 3D Studio Max
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 121.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a second-level course in the use of 3D Studio Max software to create animation using 3D computer models. Includes advanced 3D model construction, rendering, and animation using camera, target and object motion.

ETECH 125
3D Wireframe and Surface Modeling
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the use of computer aided design software for 3D wireframe and surface modeling of mechanical and architectural designs. Ability to use CAD software to draw 2D shapes, revise 2D drawings, dimension 2D drawings, and plot 2D drawings is required.

ETECH 126
3D Solid Modeling and Rendering
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the use of computer aided design software for 3-dimensional solid modeling and rendering of mechanical and architectural designs, including shaded and photorealistic rendering. Ability to use CAD software to draw 2D shapes, revise 2D drawings, dimension 2D drawings, and plot 2D drawings is required.

ETECH 128
Virtual Reality
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.
Covers an introduction to the use of computer graphics to simulate virtual 3D environments and World creation. Includes basic 3D modeling, real-time rendering, and defining object behavior.
ETECH 130
Introduction to Pro/Engineer
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers an introduction to the fundamental operating principles of Pro/Engineer software. Uses Pro/Engineer for Windows to create and revise drawings. This is a foundation course that can lead to advanced study in a variety of drafting and design fields.

ETECH 131
Intermediate Pro/Engineer
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 3 times.
Prerequisite: ETECH 130.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers intermediate-level operating principles of Pro/Engineer software. Uses Pro/Engineer for Windows to create and revise drawings. The second of a two part Pro/E course series.

ETECH 132
Printed Circuit Design
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 31.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the use of computer aided design software for design of electronic printed circuit boards, including footprint symbol creation, symbol library maintenance, analog/digital printed circuit design, surface mount technology, and hands-on circuit electronics instruction.

ETECH 135
Survey of Electronics Technology
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a comprehensive introductory survey of electronics which includes voltage, current and resistance, types of electronic components and circuits, semiconductor devices, IC fabrication, Surface Mount Technology (SMT), and hands-on lab instruction.

ETECH 138
Electromechanical Systems
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 42 and ETECH 132.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the theory and application of mechanical devices and their control circuits. Topics include component recognition, electrical schematic diagrams, hydraulics, pneumatics, AC and DC motors, stepping motors, mechanical drive systems and servomechanisms. Provides hands-on experience with assembly/disassembly operations including maintenance and troubleshooting of small-scale electromechanical, pneumatic, and fluid power systems.

ETECH 140
Introduction to Maya
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces Maya, a popular 3D animation software used in the creation of animated organic, mechanical and architectural designs. Alias/Wavefront’s Maya is the current leader in the film/television industry. Includes an introduction to 3D model construction, texturing, lighting, animation, cinematography and rendering.

ETECH 141
Intermediate Maya
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 3 times.
Prerequisite: ETECH 140.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a second-level course in the use of Maya software to create animation using 3D computer models. Includes advanced 3D model construction, rendering, and animation using camera, target and object motion.

ETECH 145
ANSI Standards in Mechanical Drafting
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 and ETECH 141 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents advanced mechanical drafting course covering the relevant American National Standards Institute standards, including geometric dimensioning/tolerancing, finish symbols, weld symbols, and other relevant symbols/conventions. Many companies require knowledge of ANSI standards for entry-level drafters. All work will be completed using AutoCAD software.

ETECH 150
ETECH Careers and Employment Preparation
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a review of current trends/developments in the engineering technology field with focus on skill set requirements, employment opportunities, and projected job trends associated with the various Engineering Technology branches. Mock interviews, portfolio building and resume creation will be completed during lab sessions.

ETECH 175
ArchiCAD II
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken 3 times.
Prerequisite: ETECH 71.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches advanced use of ArchiCAD architectural design software with focus on it’s many virtual model refinement capabilities. Includes instruction on the printing of architectural-size drawings, quantity calculations, shaded view creation, photo-realistic rendering, sun studies, animation ‘fly throughs,’ virtual reality, and panoramic scenes. This is the second of a two-part ArchiCAD course series.
ETECH 190A-Z  
Special Topics in Engineering Technology  
0.5-5 units; 0.5 hour Lecture or 1.5 hours Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Selected topics in Engineering Technology not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.

ENGLISH  
Business, English, and Language Arts Division  
James Weckler, Division Dean  
Division Office, Room 501  
Adela Najarro, Program Chair, (831) 477-3204  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6400 for more information  
www.cabrillo.edu/programs

Information for English Majors  
Students majoring in English at Cabrillo may take courses in composition, critical thinking, research writing, creative writing, journalism, film, teaching and tutoring techniques, and a wide range of literature courses, including British and American surveys, Mythology and Folklore, Children’s Literature, World Literature, and studies of Chicana/o-Latina/o, Native American, African American, and Latin American poetry and prose. These courses help students to write effectively and persuasively, to hone their critical thinking skills, and to cultivate their understanding and appreciation of literature in the context of culture. Majoring in English leads directly to careers in teaching, journalism, publishing and editing, technical writing, public relations, and advertising. It is also excellent preparation for careers in law, communications, government, and a variety of business environments.

MODEL PROGRAM FOR ENGLISH  
The following model program fulfills requirements for the A.A. in English at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses Units  
ENGL 18 or 18MC Composition and Literature ................. 3  
Choose at least two from the following three courses:  
ENGL 34 Shakespeare ................................................. 3  
ENGL 46AB Major British Writers ................................ 3-3  
Choose at least two from the following seven courses:  
ENGL 24AB Native American Prose and Poetry ................. 3-3  
ENGL 30AB American Literature .................................. 3-3  
ENGL 39 Chicana/o-Latina/o Literature .......................... 3  
ENGL 41AB African American Literature .......................... 3-3

Approved Electives  
ENGL 12ABCD E F Creative Writing: Introduction,Prose, Poetry, Drama, Film, or Autobiography ............... 6  
ENGL 31, 32, or 33 The Novel, The Short Story or Introduction to Poetry ............................................. 3  
ENGL 24AB Native American Prose and Poetry ................. 3-3  
ENGL 30AB American Literature .................................. 3-3  
ENGL 34 Shakespeare ................................................. 3  
ENGL 39 Chicana/o-Latina/o Literature .......................... 3  
ENGL 40 Latin American Literature ............................... 3-3  
ENGL 41AB African American Literature .......................... 3-3  
ENGL 45 World Literature ............................................ 3  
ENGL 46AB Major British Writers .................................. 3-3  
ENGL 48A Mythology and Folklore .................................. 3

Recommended from Related Disciplines  
Many four-year colleges and universities require English majors to study a foreign language. Consult a counselor for specific information about the requirements of the school you plan to attend.

Associate in Arts Degree in English  
General Education ..................................................... 30  
English Core Courses ................................................ 15-18  
Approved English Electives ........................................ 3-6  
Electives (any course numbered 1-99) ............................. 6-12  
Total for A.A. Degree in English ................................. 60

GENERAL INFORMATION ABOUT MEETING PREREQUISITES  
Course prerequisites may be met in the following ways:  
• Successful completion of the prerequisite course as listed in the Catalog or Schedule of Classes  
• Successful completion of appropriate coursework at another institution  
• An appropriate placement score  
• For certain courses, equivalent professional experience

If you believe you have completed the listed prerequisites or corequisites for a course as listed in the Catalog or Schedule of Classes, make an appointment to see a counselor.

English Courses  
ENGL 1A  
College Composition  
3 units; 3 hours Lecture  
Prerequisite: ENGL 100 and ENGL 100L and ENGL 115.  
Corequisite: LIBR 10.  
Emphasizes the expository essay and research paper; readings serve as models and topics for discussion. Students write at least 6,000 words, focusing on clarity and accuracy. Not open to students who have completed ENGL 1AMC. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 1AH/1AMC/1AMCH.
ENGL 1AH
Honors College Composition
3 units; 3 hours Lecture
Prerequisite: ENGL 100 and ENGL 100L or ENGL 115; Honors standing.
Corequisite: LIBR 10.

Emphasizes the expository essay and research paper; readings serve as models and topics for discussion. Honors section stresses rigorous analytic reading and writing. Students write at least 8,000 words, focusing on clarity and accuracy. Not open to students who have completed ENGL 1AMC.

Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 1A/1AH/1AMCH.

ENGL 1B
Composition and Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.

Recommended Preparation: LIBR 10 (may be taken concurrently).

Introduces literature through reading, writing, and discussion to develop critical and analytical skills; satisfies Humanities & Fine Arts requirement for UC/CSU. Students write at least 6,000 words, focusing on literary interpretation and research. Not open to students who have completed ENGL 1BMC. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 1B.

ENGL 1AMC
College Composition: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 100 and ENGL 100L or ENGL 115.

Corequisite: LIBR 10.

Emphasizes the expository essay and research paper; readings are used as models and topics for discussion. Students write a minimum of 6,000 words with an emphasis on clarity and accuracy. Satisfies both ENGL 1A and multicultural requirement. Not open to students who have completed ENGL 1A.

Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 1A/1AH/1AMCH.

ENGL 1AMCH
Honors College Composition: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 100 and ENGL 100L or ENGL 115; Honors standing.

Corequisite: LIBR 10.

Emphasizes the expository essay and research paper; readings are used as models and topics for discussion. Honors section stresses rigorous analytic reading and writing. Students write a minimum of 8,000 words with an emphasis on clarity and accuracy. Satisfies both ENGL 1A and multicultural requirement. Not open to students who have completed ENGL 1A.

Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 1A/1AH/1AMCH.

ENGL 1BMC
Composition and Literature: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.

Recommended Preparation: LIBR 10 (may be taken concurrently).

Introduces multicultural literature through reading, writing, and discussion to develop analytical skills. Satisfies the IGETC and CSU Humanities and Fine Arts (ENGL 1B) requirements and Cabrillo multicultural requirement. Students write at least 6,000 words, focusing on literary interpretation and research. Not open to students who have completed ENGL 1B.

Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 1B.

ENGL 1C
Advanced Composition
3 units; 3 hours Lecture
Prerequisite: ENGL 1B/1BMC or ENGL 2/2H or ENGL 2MC/2MCH.

Focuses on expository and research writing, analytical reading, and critical thinking; reading includes several book-length works. Students write at least 6,000 words. ENGL 1A, 1B, and 1C are required for some majors at UC Berkeley; see ASSIST for more information.

Transfer Credit: Transfers to CSU, UC.

ENGL 2
Composition and Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH,

Recommended Preparation: ENGL 1B/1BMC; LIBR 10 (may be taken concurrently).

Develops writing and reading skills for logical reasoning and argumentation; satisfies the IGETC & CSU critical thinking requirements. Students write a minimum of 6,000 words. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 2H/2MC/2MCH.
ENGL 2H
Honors Composition and Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH; Honors standing.
Recommended Preparation: ENGL 1B/1BMC, LIBR 10 (may be taken concurrently).
Develops writing and reading skills for logical reasoning and argumentation; satisfies the IGETC & CSU critical thinking requirements. Honors section stresses rigorous analytic reading and writing and a cross-curricular emphasis. Students write a minimum of 8,000 words.
Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 2/2H/2MCH.

ENGL 2MC
Composition and Critical Thinking: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BMC, LIBR 10 (may be taken concurrently).
Develops writing and reading skills for logical reasoning and argumentation with a multicultural emphasis. Satisfies the IGETC & CSU critical thinking (ENGL 2) requirements and Cabrillo multicultural requirement. Students write a minimum of 6,000 words. Not open to students who have completed ENGL 2.
Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 2/2H/2MCH.

ENGL 2MCH
Honors Composition and Critical Thinking: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH; Honors Standing.
Recommended Preparation: ENGL 1B or ENGL 1BMC; LIBR 10 (may be taken concurrently).
Develops writing and reading skills for logical reasoning and argumentation with a multicultural emphasis. Satisfies the IGETC & CSU critical thinking (ENGL 2) requirements and Cabrillo multicultural requirement. Honors section stresses rigorous analytic reading and writing and a cross-curricular emphasis. Students write a minimum of 8,000 words. May be offered in a Distance-Learning Format. Not open to students who have completed ENGL 2.
Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 2/2H/2MCH.

ENGL 4
Techniques of Peer Tutoring
2 units; 6 hours Laboratory
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Provides theoretical training and practical experience as a writing tutor; lab hours are spent observing and tutoring in the Writing Center, English as a Second Language Lab, in English classes, and online. Students also meet in a weekly seminar with the instructor to discuss common writing problems and tutoring techniques.
Transfer Credit: Transfers to CSU.

ENGL 6
Creative Techniques for Teaching Writing
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Corequisite: 1 unit ENGL 99G or ENGL 80S.
Recommended Preparation: READ 100.
Provides theoretical and practical training as student-teacher interns for teaching writing. Students meet three hours per week in a seminar with the instructor to discuss teaching theory, techniques, and lesson-planning for creatively based writing lessons. Student pairs are placed in K-12 classrooms in a work-based service learning project to present writing lessons (ENGL 99G). Students may substitute a relevant Special Studies project for the classroom experience (ENGL 80S).
Transfer Credit: Transfers to CSU.

ENGL 12A
Creative Writing: Prose
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Teaches techniques of fiction writing; in-class discussion of student writing.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 12B
Creative Writing: Poetry
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/ENGL 1BMC.
Teaches techniques of poetry writing; in-class discussion of writing by students and published poets.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCDEF maximum credit, 6 units per college.
ENGL 12C
Creative Writing: Film
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Teaches techniques of screenwriting in a workshop format; in-class discussion of professional and student screenplays; viewing and analyzing of selected films.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 12D
Creative Writing: Drama
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Teaches techniques of playwriting; in-class discussion of student writing.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 12E
Creative Writing: Autobiography
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Teaches techniques of autobiography writing; in-class discussion of student writing and of published memoirs.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 12F
Introduction to Creative Writing
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Teaches techniques and traditions of various creative writing forms, including fiction, poetry, drama, and other genres; in-class discussion of student writing. Students will write and revise at least 6,000 words.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 14A
Advanced Fiction Workshop
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 12A.
Develops fiction writing skills and knowledge as a continuation of ENGL 12A through writing, discussion and appropriate reading. Students will write a minimum of 6000 words.
Transfer Credit: Transfers to CSU, UC.

ENGL 14B
Advanced Poetry Workshop
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 12B.
Recommended Preparation: ENGL 1B/ENGL 1BMC.
Develops poetic skills and knowledge as a continuation of ENGL 12B through writing, discussion, and appropriate reading. May focus through a special theme.
Transfer Credit: Transfers to CSU, UC.

ENGL 14C
Advanced Screenwriting Workshop
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 12C.
Develops screenwriting skills as a continuation of ENGL 12B through extensive writing, workshop discussion and script read-throughs; uses appropriate reading, viewing and analysis of selected films to augment discussions and critiques. Students will write a minimum of 6,000 words.
Transfer Credit: Transfers to CSU, UC.

ENGL 14E
Autobiography Workshop
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 12E.
Continuation of ENGL 12E; further develops memoir-writing skills and knowledge at a more advanced level through writing, discussion, and appropriate reading.
Transfer Credit: Transfers to CSU, UC.

ENGL 16
Magazine Editing and Publication
3 units; 3 hours Lecture
Repeatability: May be taken 3 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Teaches magazine editing and production techniques through lecture, demonstration, and practical experience gained through producing a literary or other magazine, including an on-line version.
Transfer Credit: Transfers to CSU.
ENGL 17
Studies in Literary Themes/Types
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BMC.
Studies a particular literary theme, genre, movement, tradition; a study of a literary topic in a particular historical, political, social, or cultural context. Readings vary with course topic.
Transfer Credit: Transfers to CSU; UC, with conditions: Must be taken for a minimum of 3 units to transfer to UC.

ENGL 18
Studies in Individual Writers
1-3 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Examines the works of a single writer or a group of related writers.
Transfer Credit: Transfers to CSU; UC, with conditions: Must be taken for a minimum of 3 units to transfer to UC.

ENGL 20A
Children's Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Surveys old and new books for children, including the nature of literary values in these works. Standards of evaluation are discussed. Emphasis on fiction, folklore, storytelling, and the history of children's books.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 20A & 20B combined-maximum credit-1 course.

ENGL 20B
Children's Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Surveys children's literature with emphasis on illustration, picture books, poetry and mid-twentieth century authors.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 20A & 20B combined-maximum credit-1 course.

ENGL 23A
Reporting for the News Media
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Corequisite: JOURN 53.
Teaches the basics of newsgathering and writing for newspapers and online news websites. Students participate in producing the college newspaper.
Transfer Credit: Transfers to CSU, UC.

ENGL 24A
Native American Prose and Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Surveys contemporary Native American literature of North America, including short stories, poetry, novels and criticism, with emphasis on the historical, philosophical, spiritual, political and aesthetic contexts.
Transfer Credit: Transfers to CSU, UC.

ENGL 24B
Native American Prose and Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Surveys Native American writers, from the 18th century up to the early 20th century, examining the continuity of value systems and experience, as well as key differences between early and new Native writers. Emphasis on the historical, philosophical, spiritual, political and aesthetic contexts.
Transfer Credit: Transfers to CSU, UC.

ENGL 30A
American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/ ENGL 1BMC.
Surveys major American writers from the colonial period to the 1880s, including representative texts by writers such as Bradstreet, Franklin, Cooper, Emerson, Hawthorne, Poe, Douglass, Whitman, and Dickinson.
Transfer Credit: Transfers to CSU, UC.

ENGL 30B
American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/ ENGL 1BMC.
Surveys major American writers from the 1880s to the present, including the works of such writers as Twain, James, Crane, Pound, Frost, Wharton, Stevens, Eliot, Hughes, Williams, Fitzgerald, Hemingway, and Faulkner, as well as more contemporary writers such as Ellison, Tennessee Williams, Miller, and Morrison.
Transfer Credit: Transfers to CSU, UC.

ENGL 31
The Novel
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Emphasizes fictional techniques, the history of the novel, and critical theory through careful reading and analysis of selected novels.
Transfer Credit: Transfers to CSU, UC.
ENGL 32
The Short Story
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Emphasizes fictional techniques and critical theories based on careful reading of selected short stories.
Transfer Credit: Transfers to CSU, UC.

ENGL 33
Introduction to Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Examines the nature of poetry as an art form, its language, its techniques, and its traditions; a wide selection of poets and poetic styles will be studied and students will have the opportunity to hear guest poets read and to attend local poetry readings.
Transfer Credit: Transfers to CSU, UC.

ENGL 34
Shakespeare
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B and/or ENGL 1BMC.
Introduces the plays and sonnets of William Shakespeare within the social, political, and cultural contexts in which they were written and presented. Examines several plays and sonnets in detail.
Transfer Credit: Transfers to CSU, UC.

ENGL 39
Chicana/o-Latina/o Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Studies various genres of Chicana/o-Latina/o literature as an important part of the literary heritage of the United States that has helped to develop and document communities of people.
Transfer Credit: Transfers to CSU, UC.

ENGL 40
Latin American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Introduces translated works of legend, myths, poetry, prose, and drama of major Latin American writers as representative of the cultural and ideological forces that produced them, from pre-Columbian times to the present.
Transfer Credit: Transfers to CSU, UC.

ENGL 41A
African American Literature: Slave Narrative to 20th Century
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Surveys early African American literature, including short stories, poetry, novels and criticism. Students will be thoroughly acquainted with a scope of African American authors, poets and social philosophers, and will garner the skills for deconstructing their works and recognizing their contributions to the contextual fabric of America. Through these texts, students will also gain insight into the cultural dynamics of the African diaspora.
Transfer Credit: Transfers to CSU, UC.

ENGL 41B
African American Literature: 20th Century to Present
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Surveys African American literature from the turn of the 20th century to the present, including short stories, poetry, novels, films and criticism. Students will be thoroughly acquainted with a scope of African American authors, poets and social philosophers, and will garner the skills for deconstructing these texts and recognizing their contributions to the contextual fabric of America. Through these works, students will also gain insight into the cultural dynamics of the African Diaspora.
Transfer Credit: Transfers to CSU, UC.

ENGL 45
World Literature
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Surveys significant literary works, mainly from non-Western cultures, written in or translated into English, including short stories, poetry, novels, plays, films, and/or criticism. Investigates primary texts within the historical, political, social, and cultural contexts in which they were produced. Also investigates primary texts within historical, social, and cultural contexts in which they have been read, and validated or marginalized.
Transfer Credit: Transfers to CSU, UC.

ENGL 46A
Major British Writers I
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/ENGL 1BMC.
Surveys major British writers from the Middle Ages through 1785, including representative texts by writers such as the Chaucer, Spenser, Shakespeare, Donne, Milton, Swift, Pope. Relates the literature to the social, political, and cultural contexts in which it was written and read.
Transfer Credit: Transfers to CSU, UC.
ENGL 46B
Major British Writers II
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/ENGL 1BMC.
Surveys major British writers from 1785 to the present, including representa- tive texts by such writers as Blake, Wollstonecraft, Wordsworth, Keats, Austen, Dickens, Conrad, Yeats, Woolf, Joyce, Eliot, and Pinter; also includes texts by major non-British writers in English, such as Beckett, Gordimer, Achebe, Friel, Heaney, and Rushdie. Relates the lit- erature to the social, political, and cultural contexts in which it was written. Transfer Credit: Transfers to CSU, UC.

ENGL 47
The Literature of the Storyteller
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Centers on the literature and techniques of the storyteller from various cultures around the world. Transfer Credit: Transfers to CSU, UC.

ENGL 48A
Mythology and Folklore
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Explores classical mythology in literature and other arts, including the origins and recurrence of myths and their significance and relevance today. Transfer Credit: Transfers to CSU, UC.

ENGL 49A
The Language of Film: Film History
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Introduces students to the history of film, film technology, various film styles, genres, and movements, as well as helping them develop and apply a knowledge of film terminology and theories to critically analyze American and international cinema. Transfer Credit: Transfers to CSU, UC.

ENGL 49B
The Language of Film: Special Topics in Film
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
This course emphasizes the detailed study of a special topic in film, such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme; or the screen versions of literary works. Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

ENGL 59A-Z
The Language of Film: Special Topics in Film
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Emphasizes the detailed study of a special topic in film, such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme; or the screen versions of literary works. Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

ENGL 100
Elements of Writing
3 units; 3 hours Lecture
Repeatability: May be taken 3 times.
Prerequisite: ENGL 255 or ESL 204B.
Corequisite: ENGL 100L or ENGL 115.
Recommended Preparation: Eligibility for READ 100.
Develops skills in writing a variety of academic and professional documents, including personal narratives, analytical essays, reports, and persuasive prose; students read and discuss prose models, complete timed writings, and prepare portfolios of written work. Students write, revise, and edit a minimum of 6,000 words. May be offered in a Distance-Learning Format.

ENGL 100L
Writing Laboratory
1 unit; 2 hours Laboratory
Repeatability: May be taken 3 times.
Practice and study of grammar, sentence structure, punctuation and style in student writing; students meet weekly in a small workshop with an hour of homework per week. Pass/no pass grading only. May be offered in a Distance-Learning Format.
ENGL 115
Lessons in Punctuation and Sentence Structure
1 unit; 1 hour Lecture
Repeatable: May be taken 3 times.
Prerequisite: Eligibility for ENGL 100.
Corequisite: ENGL 100.
Practice and study of grammar, sentence structure, punctuation and style in a lecture and discussion format with the ENGL 100 class. Only offered in conjunction with off-campus, weekend, and special ENGL 100 sections. Pass/no pass grading only.

ENGL 153
Spelling Lab
1-2 units; 3 hours Laboratory
Repeatable: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides individualized instruction on spelling patterns and rules under the supervision of a writing tutor. May be offered in a Distance-Learning Format.

ENGL 155A-Z
Special Topics in Writing Study Skills
0.5-1 units; 1.5 hours Laboratory
Repeatable: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides individualized lab instruction in note-taking, planning, drafting, and editing various forms of timed and revised writing; assignments are tailored to specific topic areas.

ENGL 157
Business and Technical Writing
3 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for or completion of BUS 156 and ENGL 100.
Techniques for writing, organizing, and editing business and technical documents. Includes audience analysis and strategies for delivering positive, negative, or persuasive information through electronic and paper communications.

ENGL 250
Basic Sentence Writing
1-2 units; 2 hours Laboratory
Practice in grammar, sentence structure, reading comprehension, and short essay composition. Tutorial supervision; Pass/no pass based on the successful completion of short reading and writing assignments, as well as exercises to develop basic skills.

ENGL 251
Lessons in Sentence Writing
1 unit; 1 hour Lecture
Covers standard English usage and sentence patterns through lecture, discussions and exercises. Only offered in conjunction with off-campus, weekend or special ENGL 255 classes. Pass/no pass grading only.

ENGL 255
Basic English
4 units; 4 hours Lecture
Corequisite: READ 255 or READ 206 (1-3 units).
Develops writing and grammar skills that are below college level with emphasis placed on essay writing, grammar, word processing, and other skills for success in college. Students write at least 6,000 words and assemble portfolios of revised and timed writings. Pass/no pass grading only.

ENGL 256A–Z
Special and Topical Approaches to Basic Writing
4 units; 4 hours Lecture
Parallels ENGL 255 but focus around a single topic or special approach (reading and writing about the newspaper, health issues, the family, writing blocks). Pass/No Pass grading only.

ENGL 280
Topics in Second Language Grammar
3 units; 3 hours Lecture
Prerequisite: ENGL 155A ENGL 255 Placement in or higher level course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
For non-native speakers taking or qualifying for ENGL 255, 100, 1A, or 1B. Supplementary course focusing on lingering problems in grammar, syntax, and idiom.

ENGL 290
Writing Fundamentals
0.5-3 units; 1.5 hours Laboratory
Focus on writing practice through individualized, tutorial-based instruction: grammar and style, basic composition (including formatting on the computer), reading and vocabulary, and introduction to college culture. Study may extend through the entire semester or be completed in shorter, intensive modules. Course may be taken pass/no pass only.

ENGL 501
Shakespeare's Poetic Drama for Seniors
0 units; 3 hours Lecture
Repeatable: May be repeated.
Introduces the plays and sonnets of William Shakespeare within the social, political, and cultural context in which they were written, performed, and attended or received. Examines the cultural functions and significance of Shakespeare study in the 20th and 21st centuries.

ENGL 502
Autobiography Writing for Seniors
0 units; 2 hours Lecture
Repeatable: May be taken 4 times.
Techniques and practice of autobiography writing; in-class discussion of student writing.
ENGL 502A
Autobiography Writing for Seniors
0 units; 2 hours Lecture
Repeatability: May be taken 4 times.
Studies techniques and practice of autobiography writing through in-class analysis of student writing.

ENGL 502L
Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Studies individual tutorial assistance on college writing assignments; designed to support students who use writing tutorial services on an as-needed basis.

ENGL 549A
The Language of Film for Seniors: Film History
0 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Introduces students to the history of film, film technology, various film styles, genres, and movements, as well as helping them develop and apply a knowledge of film terminology and theories to critically analyze American and international cinema. This is a non-credit course for senior citizens taught with English 49A. Seniors should attend the 1st class meeting and may register in the 3rd week of classes.

ENGL 549B
The Language of Film for Seniors: Special Topics in Film
0 units; 3 hours Lecture
Repeatability: May be taken 4 times.
This course emphasizes the detailed study of a specific topic in film such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme; or the screen versions of literary works. Senior citizens should attend the 1st class meeting and will be allowed to register on the 1st day of the 3rd week of classes. This is a non-credit course taught with ENGL 49B.

ENGL 553
Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Repeatability: May be repeated.
This non-credit course provides individual tutorial assistance on college writing assignments. The course is designed to support students who will use writing tutorial services on an as-needed basis, and who may come only once or twice during the semester.

ENGL 559A-Z
The Language of Film for Seniors: Special Topics in Film
0 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Emphasizes the detailed study of a special topic in film, such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme; or the screen versions of literary works. Senior citizens should attend the 1st class meeting and may register in the 3rd week of classes. This is a non-credit course taught with ENGL 49B.

ENGLISH AS A SECOND LANGUAGE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Jason Malone, Program Chair (831) 477-3205
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

English as a Second Language Courses

ESL 200A
Orientation to ESL
6 units; 6 hours Lecture
This course is designed to provide new students of English as a Second Language with the basic vocabulary to begin ESL studies at Cabrillo.

ESL 200L
English Development Lab: Orientation
0.5-2 units; 1.5 hours Laboratory
Provides one-to-one and small group tutorial assistance to orient students to the English language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is pass/no pass and operates on a drop-in or appointment basis.

ESL 201A
Foundations of ESL–Low Level
6 units; 6 hours Lecture
Prerequisite: ESL 200A or equivalent.
A writing preparation class for second language students with an introduction to verbs, tenses, and parts of speech. Emphasis will also be placed on the development of speaking and listening skills. Simple sentences will serve as the focus for writing development.
ESL 201B  
**Foundations of ESL-High Level**  
6 units; 6 hours Lecture  
Prerequisite: ESL 201A or equivalent.  
A writing preparation class for second language students with an expanded introduction to basic verb tenses and parts of speech. Emphasis will also be placed on the development of vocabulary in speaking and listening skills. Short passages using mostly simple sentences will serve as the focus for written work.

ESL 201L  
**English Development Lab: Foundation**  
0.5-2 units; 1.5 hours Laboratory  
Provides one-to-one and small group tutorial assistance as a foundation for students for whom English is not the first language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is pass/no pass and operates on a drop-in or appointment basis.

ESL 202A  
**Beginning ESL–Low Level**  
6 units; 6 hours Lecture  
Prerequisite: ESL 201B or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
A beginning writing class for second language students with further work on basic grammar, usage, parts of speech, and simple and compound sentences. In addition, short selected readings will be assigned for class discussion, written response and sentence-pattern practice. Further development of speaking and listening skills, question construction and appropriate use of common American idioms will be emphasized. Paragraph, e-mail and short letter writing will serve as the focus for written work.

ESL 202B  
**Beginning ESL–High Level**  
6 units; 6 hours Lecture  
Prerequisite: ESL 202A or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
A beginning writing class for second language students with further work on basic grammar, usage, parts of speech, and compound/complex sentences. In addition, short selected readings will be assigned for class discussion, written response and sentence-pattern practice. Further development of speaking and listening skills, question construction and appropriate use of common American idioms will be emphasized. Paragraph, e-mail, letter, and short prose writing will serve as the focus for written work. This course May be offered in a Distance-Learning Format.

ESL 202L  
**Beginning English Development Lab**  
0.5-2 units; 1.5 hours Laboratory  
Provides one-to-one and small group tutorial assistance to beginning students for whom English is not the first language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is pass/no pass and operates on a drop-in or appointment basis.

ESL 202R  
**Beginning Reading and Vocabulary**  
2-4 units; 2 hours Lecture  
Introduces basic reading skills by using a variety of texts while focusing on vocabulary development and reading comprehension. Students identify organizational elements and develop reading strategies by using forms, simple manuals, short articles, and short stories.

ESL 203A  
**Intermediate ESL–Low Level**  
6 units; 6 hours Lecture  
Prerequisite: ESL 202B or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Prepares second-language students for English composition involving intermediate grammar structures, punctuation, and idioms. Requires essay development and journal writing.

ESL 203B  
**Intermediate ESL–High Level**  
6 units; 6 hours Lecture  
Prerequisite: ESL 203A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Prepares second-language students for English composition involving high-intermediate grammar structures, punctuation and idioms. Requires short essay and journal writing.

ESL 203L  
**Intermediate English Development Lab**  
0.5-2 units; 1.5 hours Laboratory  
Provides one-to-one and small group tutorial assistance to intermediate students for whom English is not the first language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is pass/no pass and operates on a drop-in or appointment basis.

ESL 203R  
**Intermediate Reading and Vocabulary**  
2-4 units; 2 hours Lecture  
Recommended Preparation: ESL 202R.  
Develops reading by using a variety of texts and expands vocabulary, writing, and discussion skills. Emphasis on reading strategies, comprehension, and vocabulary. Provides strategies to integrate reading and writing skills. Students will analyze and interpret material in writing and discussion.

ESL 204A  
**Advanced ESL–Low Level**  
6 units; 6 hours Lecture  
Prerequisite: ESL 203B or equivalent.  
Covers advanced English composition for second-language students who are working toward a mastery of grammar, usage, and punctuation. Practice note-taking, journal writing and examination writing, but emphasis will be on the development of a student’s written fluency in essay writing.
ESL 204B
Advanced ESL–High Level
6 units; 6 hours Lecture
Prerequisite: ESL 204A or equivalent.
Prepares second-language students for advanced English composition involving mastery of grammar, usage, and punctuation. May cover note-taking, journal writing and examination writing, but emphasis will be on the development of a student’s written fluency in a variety of essay modes.

ESL 204L
Advanced English Development Lab
0.5-2 units; 1.5 hours Laboratory
Provides one-to-one and small group tutorial assistance to students for whom English is not the first language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is pass/no pass and operates on a drop-in or appointment basis.

ESL 220A
English for Childcare Professionals–Level I
3 units; 3 hours Lecture
A basic skills writing class for second language students with a specific focus on the basic vocabulary and concepts of Early Childhood Education. It includes an introduction to grammar, usage, parts of speech, simple and compound sentences. The focus for written work will be the sentence and paragraph. Speaking and listening skills will also be practiced.

ESL 220B
English for Childcare Professionals–Level II
3 units; 3 hours Lecture
Prerequisite: ESL 220A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A basic skills writing class for second language students with a specific focus on the vocabulary, concepts, and theory of Early Childhood Education. It includes continuing work on grammar, usage, parts of speech, simple and compound sentences. The focus for written work will be the sentence, and paragraph development. Speaking and listening skills will also be practiced.

ESL 222A
ESL Individualized Grammar Module A
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of the verb “be” in past and present tense forms under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 222B
ESL Individualized Grammar Module B
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of the present progressive and simple present tenses, and non-action verbs under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 222C
ESL Individualized Grammar Module C
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of the simple past tense and irregular verb forms under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 222D
ESL Individualized Grammar Module D
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of the present perfect tense, present perfect progressive tense, and the past participle form of common irregular verbs under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 222E
ESL Individualized Grammar Module E
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of the future tenses under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 222F
ESL Individualized Grammar Module F
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of modals and modal-like expressions under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 222G
ESL Individualized Grammar Module G
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of of phrasal verbs under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 222H
ESL Individualized Grammar Module H
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of gerunds and infinitives under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 222J
ESL Individualized Grammar Module J
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of the passive voice under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.
ESL 222K
ESL Individualized Grammar Module K
0.5 unit; 1.5 hours Laboratory
Develops skill in the use of articles and determiners under the guidance of Writing Lab staff. Pass/no pass grading. Open Entry/Open Exit: enrollment is permitted through the twelfth week of instruction.

ESL 253A
Beginning ESL Oral Communication
4-6 units; 4 hours Lecture
Corequisite: ESL 200A or ESL 201A or ESL 201B.
Develops oral skills using basic conversation in small groups and one-on-one, listening comprehension, pronunciation and intonation, and role playing simulations.

ESL 253B
Intermediate ESL Oral Communication
4-6 units; 4 hours Lecture
Recommended Preparation: ESL 253A.
Small group discussion, listening comprehension, pronunciation, intonation, vocabulary, American idioms, reading, taped conversations, lecture note-taking

ESL 253C
Advanced ESL Oral Communication
4-6 units; 4 hours Lecture
Recommended Preparation: ESL 253B or equivalent experience.
Prepares students for entry into regular Cabrillo classes using advanced discussion in small groups and one-on-one. Activities involve listening comprehension, abstract level readings from academic texts, lecture note-taking, pronunciation, intonation, and American idioms. Bridges to mainstream classes.

ESL 259
Vocabulary Development for Specific Careers
3 units; 3 hours Lecture
Expands knowledge of specialized vocabulary for specific jobs. Students use the Internet and visit work sites in teams with common career goals.

ESL 260A
ESL Writing Improvement–Beginning Low Level
2 units; 2 hours Lecture
Writing improvement workshop for English as a Second Language students focusing on self-editing very basic grammar and sentence patterns for new and continuing ESL students. Students will receive individualized instruction for writing and grammar problem areas and join small groups to work on common problems. Pass/no pass grading only.

ESL 260B
ESL Writing Improvement–Beginning High Level
2 units; 2 hours Lecture
Writing improvement workshop for English as a Second Language students focusing on high beginning grammar and sentence patterns for new and continuing ESL students. Students will receive individualized instruction for writing and grammar problem areas and join small groups to work on common problems. Pass/no pass grading only.

ESL 261A
ESL Writing Improvement–Intermediate Level
2 units; 2 hours Lecture
Writing improvement workshop for English as a Second Language students focusing on self-editing intermediate grammar as well as sentence and paragraph patterns for new and continuing ESL students. Students will receive individualized instruction for writing and grammar problem areas and join small groups to work on common problems. Pass/no pass grading only.

ESL 261B
ESL Writing Improvement–Advanced Level
2 units; 2 hours Lecture
Writing improvement workshop for English as a Second Language students focusing on self-editing advanced grammar as well as sentence, paragraph and essay patterns for new and continuing ESL students. Students will receive individualized instruction for writing and grammar problem areas and join small groups to work on common problems. Pass/no pass grading only.

ESL 270P
Pronunciation Improvement for ESL Students
1-3 units; 1 hour Lecture
Improves clarity of pronunciation for English language learners. Intensive focus on standard American English vowel sounds and basic stress and rhythm patterns.

ESL 271P
Accent Reduction for ESL Students
1-3 units; 1 hour Lecture
Improves accuracy in pronunciation leading to fluency and confidence in spoken English. The focus is on building awareness and practicing pronunciation points that are central to clarity in spoken communication, including consonant sounds, intonation patterns, and conversational strategies.

ESL 273SPL
Spelling for Everyday and Academic Use
0.5-1 Units; 1.5 hours Laboratory
Covers spelling rules, word origins, word patterns, and homonyms in everyday and academic contexts using listening, speaking, and writing skills. Apply spelling skills to reading, writing, and speaking.
ESL 280A–Z
ESL Special Topics
1-3 units; 1 hour Lecture
Designed for Second Language students who wish to focus on a specific area of English development. Each topic (A–Z) may be repeated twice.

ESL 501A*
ESL Workplace Success I
0 units; 7.5 hours Lecture
Repeatability: May be repeated.
Introduces students to word- and sentence-level literacy in basic spoken and written English. Provides a theme-based learning environment with group and pair practice using communicative activities, tasks, and everyday conversation.

ESL 501B*
ESL Workplace Success II
0 units; 7.5 hours Lecture
Instructs students who have some literacy in English in how to develop and improve their reading, writing, speaking, and listening skills related to real life situations. In addition, expand vocabulary, grammar, and pronunciation skills through communicative group and pair work. Provides a theme-based learning environment using activities, tasks, and situational conversations.

ESL 501C*
ESL Workplace Success III
0 units; 7.5 hours Lecture
Provides students with high beginning reading, writing, speaking, and listening skills in a theme-based learning environment. In addition, this course will improve and expand vocabulary, grammar, and pronunciation skills through communicative group and pair work, activities, tasks, and projects.

ESL Workplace Success Certificate of Completion*
This is a non-credit Certificate of Completion in Workplace Success. Completion of these courses leads students to improved employability and job opportunities.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 501A</td>
<td>ESL Workplace Success I          0</td>
</tr>
<tr>
<td>ESL 501B</td>
<td>ESL Workplace Success II         0</td>
</tr>
<tr>
<td>ESL 501C</td>
<td>ESL Workplace Success III        0</td>
</tr>
<tr>
<td>Total Units</td>
<td>0</td>
</tr>
</tbody>
</table>

*These courses and certificate are currently awaiting Chancellor’s Office approvals, and will not be offered until approved.

ESL 502
Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Provides individual tutorial assistance on college writing assignments; designed to support students who use writing tutorial services on an as-needed basis.

ESL 553
Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Repeatability: May be repeated.
This non-credit course provides individual tutorial assistance on college writing assignments. The course is designed to support students who will use writing tutorial services on an as-needed basis, and who may come only once or twice during the semester.

ENVIRONMENTAL SCIENCE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
David Schwartz, Program Chair, (831) 479-6495
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Environmental Science Courses

ES 10
Introduction to Environmental Science
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the physical, biological, chemical and human systems that constitute the Earth’s environment. Topics include geological processes, hydrology, natural resources, climatology, population biology, ecosystems, biodiversity, biochemistry and the chemistry of pollution. Includes an analysis of how human behavior and institutions affect the environment.
Transfer Credit: Transfers to CSU, UC.

ES 10L
Introduction to Environmental Sciences Lab
1 unit; 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ES 10.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents hands-on exploration for topics associated with Environmental Science including watershed monitoring and field trips to local agencies.
Transfer Credit: Transfers to CSU, UC pending review.
ES 20
Environmental Policy-Making and Analysis
3 units; 3 hours Lecture
Recommended Preparation: PS 1/1H or PS 5; Eligibility for ENGL 100 and READ 100.

An introduction to the political economy of environmental quality and natural resource management. Topics include socioeconomic causes of resource degradation, governmental and interest group roles in developing and implementing environmental policy, policy options, benefit-cost analysis, uses of science in decision-making, case studies, policy effectiveness and reform.
Transfer Credit: Transfers to CSU, UC.

ES 50
Local Sustainability Research and Solutions
2-4 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Investigates methods for assessing sustainability as a team service-learning project, then proposing and evaluating solutions based on research results. Includes sustainability and its application to campus or community systems, primary research methodology, teamwork and project management, and presentation or publication.
Transfer Credit: Transfers to CSU, UC pending review.

FOREIGN LANGUAGES
see WORLD LANGUAGES

FRENCH
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

French Courses

FR 1
Beginning French
4 units; 4 hours Lecture
Corequisite: FR 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Develops speaking, listening comprehension, reading, and writing skills, with French as the primary language of instruction. Students communicate through class activities and begin study of French-speaking cultures.
Transfer Credit: Transfers to CSU, UC.

FR 1A
Beginning French-First Half
2 units; 2 hours Distance Ed video
Equivalent to the first half of FR 1. Development and practice of elementary speaking, listening, reading, and writing skills. Offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

FR 1B
Beginning French-Second Half
2 units; 2 hours Distance Ed video
Prerequisite: FR 1A or equivalent.
Equivalent to the second half of FR 1. Development and practice of elementary speaking, listening, reading and writing skills. Offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

FR 2
Elementary French
4 units; 4 hours Lecture
Prerequisite: FR 1 or two years of high school French with a grade of “C” or better, or the equivalent.
Corequisite: FR 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with French as the primary language of instruction. Students communicate through class activities and continue study of French-speaking cultures.
Transfer Credit: Transfers to CSU, UC.

FR 3
Intermediate French
4 units; 4 hours Lecture
Prerequisite: FR 2 or equivalent.
Corequisite: FR 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Further develops skills acquired in first-year French: review and expand grammar and vocabulary. Students will study French-speaking cultures through reading and discussion of literary and cultural texts. Develops writing skills.
Transfer Credit: Transfers to CSU, UC.

FR 4
Intermediate French
4 units; 4 hours Lecture
Prerequisite: FR 3 or equivalent.
Corequisite: FR 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Students will study advanced structures and vocabulary, will increase discussion and analysis of literary and cultural texts, and will further develop writing skills.
Transfer Credit: Transfers to CSU, UC.
FR 10
French Conversation
3 units; 3 hours Lecture
Repeatability: May be taken 3 times.
Prerequisite: FR 2 or high school equivalent (3 years of high school French).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students discuss culturally relevant topics and situations drawn from written and audio-visual sources.
Transfer Credit: Transfers to CSU, UC.

FR 20A–Z
Studies in French Language
0.5-4 units; 0.5 hour Lecture
Repeatability: May be taken 2 times.
Prerequisite: FR 2.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In-depth studies of advanced topics in French language.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

FR 50L
French Language Laboratory
1-4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of French 1-4. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

GENERAL EDUCATION
Students may earn Certificate of Achievement in CSU General Education Breadth or in IGETC General Education.
Certificates of Achievement
1. Certificate of Achievement in IGETC
   (Intersegmental General Education Transfer Curriculum)
   Requirements:
   For UC:
   Completion of a minimum of 27 units taken from Areas 1 through 5
   Must include completion of Areas 1 and 2 (English and Math) and Area 6
   For CSU:
   Completion of a minimum of 30 units taken from Areas 1 through 5
   Must include completion of Areas 1 and 2 (English and Math & Comm Studies)

2. Certificate of Achievement in CSU General Education/Breadth
   Requirements:
   Completion of a minimum of 30 units taken from Areas A through E
   Must include all of Area A (English Language Communication and Critical Thinking) and Area B4 (Quantitative Reasoning)

GENERAL SCIENCE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

Information for General Science Majors
The major in General Science provides a broad background in the sciences. Students completing this degree will have familiarity with concepts in many of the disciplines of science, including proficiency in laboratory methods. This degree may prepare the student to transfer to various science programs. Requirements for further study vary from campus to campus. See a counselor and consult catalogs for specific information on admission and general education requirements.

Information on course equivalencies for major requirements at UC and CSU is available on the World Wide Web at www.assist.org.

MODEL PROGRAM FOR GENERAL SCIENCE
The following model program fulfills requirements for the A.S. or A.A. Degree in General Science at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Associate in Science Degree in General Science
20 units of laboratory science, as defined by courses denoted with an asterisk (*) in Area B of the requirements for the A.A. Degree, in three of the five following areas. Cannot include BIO 10, CHEM 10, PHYS 10, ENGR 5 or 25.
Life Forms (defined in Area B in A.A. requirements)
Chemistry
Physics
Engineering
Earth and Space Sciences (Astronomy, Physical Geography, Geology, Meteorology or Oceanography)
Mathematics: 4 units minimum from MATH 4, 5 (series), or 12 Elective units (to achieve the required total of 30) chosen from Area B list in the A.S. degree requirements, Computer Science, or Engineering.

Associate in Science Degree in General Science

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Units</th>
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<tr>
<td>General Education</td>
<td>21</td>
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<tr>
<td>Laboratory Sciences(*)</td>
<td>20</td>
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<tr>
<td>Mathematics(*)</td>
<td>4</td>
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<tr>
<td>Approved Electives</td>
<td>6</td>
</tr>
<tr>
<td>Electives (any course numbered 1-99)</td>
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<tr>
<td>Total for A.S. Degree in General Science</td>
<td>60</td>
</tr>
</tbody>
</table>

*please see description above
Associate in Arts Degree in General Science

16 units of laboratory science, as defined by courses denoted with an asterisk (*) in Area B of the requirements for the A.A. Degree, in three of the four following areas. Cannot include BIO 10, CHEM 10, or PHYS 10.

Life Forms (defined in Area B in A.A. requirements)
Chemistry
Physics
Earth and Space Sciences (Astronomy, Physical Geography, Geology, Meteorology or Oceanography)
Mathematics: 4 units minimum from MATH 4, 5 (series), or 12/12H

Associate in Arts Degree in General Science

General Education .................................................. 30
Laboratory Sciences(*) ........................................... 16
Mathematics(*) ......................................................... 4
Electives (any course numbered 1-199) ......................... 10
Total for the A.A. Degree in General Science 60

* please see description above

GEOGRAPHY

Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
David Balogh, For Additional Information, (831) 479-6346
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Geography Majors

Geography is a comprehensive study of the earth. Physical geography is a natural science that investigates the causes and distribution of natural phenomena. Geographers study weather, climate, landform soils, tides, and water bodies. Cultural geography is a social science which studies and compares location and distribution of human values. Religion, technology, cultures, languages, economics, political ideologies, urban areas, population and recreation combine to produce a cultural landscape. Regional geography, also a social science, concentrates on specific regions of the world.

Geographers are employed in a variety of settings: title companies, city and county planning agencies, travel agencies, national and state parks, and many others. Positions are available in both private and government sectors. Students with advanced degrees may find positions in research or college teaching.

MODEL PROGRAM FOR GEOGRAPHY

The following model program fulfills requirements for the A.A. Degree in Geography at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

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<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 1</td>
<td>Physical Geography</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Cultural Geography</td>
</tr>
</tbody>
</table>

Highly Recommended

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 12/12H</td>
<td>Elementary Statistics</td>
</tr>
</tbody>
</table>

Plus one course chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 4</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>GEOG 5</td>
<td>California, a Geography</td>
</tr>
<tr>
<td>GEOG 7</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>OCEAN 10</td>
<td>Introduction to Oceanography</td>
</tr>
</tbody>
</table>

Approved Geography electives for the A.A. Degree

Any courses listed in Area D on the A.A. Degree requirements will satisfy additional Geography elective requirements for the A.A. Degree. Prospective Geography majors are encouraged to consult a Geography instructor regarding recommended elective courses.

Associate in Arts Degree in Geography

General Education .................................................. 30
Geography Core Courses ........................................... 9-14
Approved Electives ............................................... 6-10
Other Electives (any course numbered 1-199) .................. 6-11
Total for A.A. Degree in Geography 60

Geography Courses

GEOG 1

Physical Geography
3 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies the natural environment of Earth and its inhabitants including the nature, distribution, and relationship of climate, landforms, natural vegetation, soils and hydrology, and the effect of the sun and moon upon Earth processes. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU, UC.

GEOG 1L

Physical Geography Laboratory
1 unit; 3 hours Laboratory
Prerequisite: GEOG 1 or concurrent enrollment.

Provides experiments and exercises relating to topics presented in GEOG 1-Physical Geography, including maps and mapping, the seasons, weather, geomorphology, and location drills.

Transfer Credit: Transfers to CSU, UC.

GEOG 2

Cultural Geography
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the geography of culture including population dynamics, social customs, language, religion, political organization, agricultural systems, cities, industry, and environmental impacts.

Transfer Credit: Transfers to CSU, UC.
### GEOG 3A
**Map Reading**
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches map reading techniques, especially USGS quadrangles, the use and organization of the world atlas, gazetteer, and the construction of terrain profiles.
*Transfer Credit: Transfers to CSU.*

### GEOG 4
**World Regional Geography**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys the world’s geographic regions including historical development, cultures, economics, and spatial relationship of the geographic realms.
*Transfer Credit: Transfers to CSU, UC.*

### GEOG 5
**California, A Geography**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the California landscape, the physical (landforms, climate, soils, resources), and the cultural (water, agriculture, urban, recreation, history, population) including the unique regions of the state and how they differ from each other. May be offered in a Distance-Learning Format.
*Transfer Credit: Transfers to CSU, UC.*

### GEOG 7
**Weather and Climate**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Explores the science of what makes weather and climate; including climate types and their distribution, the effects of weather over time on agriculture, house types, environmental change, and the economic impacts of climate and weather.
*Transfer Credit: Transfers to CSU, UC.*

### GEOG 9
**Field Studies in Geography**
1-3 units; 0.5 hour Lecture, 1.5 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies physical and cultural problems in geography first hand with an introduction to field methods.
*Transfer Credit: Transfers to CSU; UC, with limits: Maximum credit- 1 course.*

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### GEOLGY

#### Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
David Schwartz, Program Chair, (831) 479-6495
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

#### Information for Geology Majors
Geology is the study of Earth materials and processes. A masters or Ph.D. in this field will enable the graduate to have a career in a wide variety of fields such as research, academia, engineering/consulting, geohydrology, seismology, volcanology, geophysics, glaciology, and economic geology (ore and hydrocarbon deposits), to name a few. Geology and Earth Sciences are offered as majors at UC and CSU.

#### MODEL PROGRAM FOR GEOLOGY
The following model program fulfills requirements for the A.S. Degree in Geology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 10</td>
<td>Introduction to Earth Science</td>
</tr>
<tr>
<td>CHEM 1AB</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>MATH 5ABC</td>
<td>Analytic Geometry &amp; Calculus I, II, III</td>
</tr>
<tr>
<td>PHYS 4ABC</td>
<td>Physics for Scientists and Engineers</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>PHYS 2AB</td>
<td>General Physics</td>
</tr>
</tbody>
</table>

#### Approved Electives
<table>
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<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGR 1A</td>
<td>Surveying</td>
<td>4</td>
</tr>
<tr>
<td>ES 10</td>
<td>Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 15</td>
<td>Environmental Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 20</td>
<td>California Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 25</td>
<td>Geology of National Parks</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>OCEAN 10</td>
<td>Introduction to Oceanography</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Associate in Science Degree in Geology
<table>
<thead>
<tr>
<th>Category</th>
<th>Requirements</th>
<th>Units</th>
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</thead>
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<tr>
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<tr>
<td>Core plus Approved Electives</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Total for A.S. Degree in Geology</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>
Geology Courses

GEOL 10
Introduction to Earth Science
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the phenomena and basic principles of physical geology with laboratory exercises illustrating the nature of minerals, rocks, geological processes, and the use and interpretation of topographic and geological maps.
Transfer Credit: Transfers to CSU, UC.

GEOL 15
Environmental Geology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the interactions among Earth systems, humans and the environment. Topics include Earth systems and the physical interactions among different systems, natural disasters (earthquakes, volcanoes, floods, landslides), groundwater, waste disposal, pollution, resources and population, engineering geology and land-use planning.
Transfer Credit: Transfers to CSU, UC.

GEOL 20
California Geology
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the geologic history of California. Includes the phenomena and basic principles of geology and a survey of the topography, structure, geologic history, climate and resources of each geomorphic province of California. Field trips required.
Transfer Credit: Transfers to CSU, UC.

GEOL 25
Geology of National Parks
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the geologic history, structure and materials of National Parks in North America. Includes a survey of associated internal and external Earth processes responsible for shaping our National Parks such as plate tectonics and mountain building, earthquakes, volcanoes, mass wasting, weathering, erosion, rivers and glaciers. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

GEOL 27
Geology of the Pinnacles National Monument
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Corequisite: ASTRO 27.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides a weekend field lecture course allowing the student to study, through direct observation, the geologic history and processes that have formed and shaped the Pinnacles. Camping and hiking required.
Transfer Credit: Transfers to CSU.

GEOL 30A–Z
Field Geology
1-2 units; 0.7 hour Lecture, 0.8 hour Laboratory
Repeatable: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the rocks, minerals and geologic history of the designated field area through direct observation. Various field areas include Point Lobos and the Big Sur Region, Yosemite National Park, Grand Canyon, Zion and Bryce National Parks. Camping may be required. Each A-Z course may be taken only once. Some offerings may be in conjunction with ENGL 17 and HIST 26.
Transfer Credit: Transfers to CSU.

German Courses

GRMN 1
Beginning German
4 units; 4 hours Lecture
Corequisite: GRMN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops speaking, listening comprehension, reading, and writing skills, with German as the primary language of instruction. Students communicate through class activities and begin study of German culture.
Transfer Credit: Transfers to CSU, UC.

GRMN 2
Elementary German
4 units; 4 hours Lecture
Prerequisite: GRMN 1 or two years of high school German with a grade of “C” or better, or the equivalent.
Corequisite: GRMN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with German as the primary language of instruction. Students communicate through class activities and continue study of German culture.
Transfer Credit: Transfers to CSU, UC.
GRMN 3
Intermediate German
4 units; 4 hours Lecture
Prerequisite: GRMN 2 or equivalent.
Corequisite: GRMN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Further develops skills acquired in first-year German through review and expansion of grammar and vocabulary. Students will study German culture through reading and discussion of literary and cultural texts while they develop writing skills.
Transfer Credit: Transfers to CSU, UC.

GRMN 4
Intermediate German
4 units; 4 hours Lecture
Prerequisite: GRMN 3 or equivalent.
Corequisite: GRMN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Expands skills acquired in GRMN 3 through study of more advanced structures and vocabulary. Increases emphasis on discussion and analysis of literary and cultural texts. Further develops writing skills.
Transfer Credit: Transfers to CSU, UC.

GRMN 10
German Conversation
3 units; 3 hours Lecture
Repeatability: May be taken 3 times.
Prerequisite: Two semesters of German or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students will discuss culturally relevant topics and situations drawn from written and audio-visual sources.
Transfer Credit: Transfers to CSU, UC.

GRMN 50L
German Language Laboratory
1-4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of GRMN 1-2. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

HEALTH SCIENCE/COMMUNITY HEALTH

Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Shawn Houghton, Program Chair, (831) 479-6522
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Information for Health Science/Community Health Majors
Health Science and Community Health are the academic disciplines concerned with the promotion of individual and community health as well as the prevention of disease and disability. The focus is on improving the quality of life.
Career opportunities include: health education, health counseling, nutrition counseling, corporate health promotion, drug abuse coordination, health sociology, hospital administration, public health, epidemiology, bio-statistics, and program planning.
This major prepares health practitioners who are technically skilled and effective in a variety of clinical, agency, and community settings. Employers include hospitals, government and voluntary agencies, school districts, and private industries.

MODEL PROGRAM FOR HEALTH SCIENCE
The following model program fulfills requirements for the A.A. Degree in Health Science at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses Units
BIO 4 Human Anatomy .......................... 4
BIO 5 Human Physiology .......................... 4
CAHM 20 Nutrition .............................. 3
CHEM 30AB Organic and Inorganic Chemistry for Health Occupations .......................... 8
HS 10 Personal Health .............................. 3

Recommended from Related Disciplines:
BIO 6 Microbiology .............................. 4
ECON 1A Introduction to Macroeconomics .......................... 3
ECON 1B Introduction to Microeconomics .......................... 3
PSYCH 1 General Psychology .......................... 3
SOC 1/1H Introduction to Sociology: Understanding Society .......................... 3
SOC 2/2H Contemporary Social Problems .......................... 3

Associate in Arts Degree in Health Science/Community Health
General Education .............................. 30
Health Science/Community Health .......................... 22
Electives (any course numbered 1-99) .......................... 8
Total for A.A. Degree in Health Science/Community Health .......................... 60
Health Science Courses

HS 10
**Personal Health**
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores individual health with emphasis on disease prevention and body wellness including physical and mental health, nutrition, stress, human sexuality, infectious diseases, drug use, and alternative medicine. May satisfy basic California teaching credential requirements in health education. May be offered in a Distance-Learning Format.

*Transfer Credit: Transfers to CSU; UC, with limits: HS 10 & 20 combined with WS 8: maximum credit, 3 units*

HS 12
**Stress Management**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines stress theory and research as it relates to individual health; topics may include sources of stress, stress reduction, relationship of stress and illness, and personal applications.

*Transfer Credit: Transfers to CSU*

HS 15
**Human Sexuality**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys human sexuality topics and issues with a socio-psychological and multi-cultural focus. Topics may include: sexual attitudes and values; sex research; structure and function of genital system; gender roles; physiology of human sexual responses; communication and relationships; contraception; and reproduction.

*Transfer Credit: Transfers to CSU, UC*

HS 20
**Introduction to Holistic Health and Medicine**
3 units; 3 hours Lecture
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores research and applications of complementary and alternative medicine. Topics include integrative medicine, herbal and drug use, dietary research and nutriceuticals, preventive medicine, and psychoneuroimmunology.

*Transfer Credit: Transfers to CSU; UC, with limits: HS 10 & 20 combined with WS 8: maximum credit-3 units*

HS 21
**Health and Physical Fitness**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies the implications of physical activity relative to the mental, physical and social well-being of the individual in today’s society. Upon completion of the course, students will be capable of determining their physical fitness, including aerobic capacity, body composition, flexibility, muscular strength, and endurance.

*Transfer Credit: Transfers to CSU*

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**HS 22**

**The Wellness Challenge**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores personal wellness concepts in disease prevention while integrating diet, exercise, and stress factors with behavior change models for lifelong wellness. Emphasis on adopting and maintaining a healthy lifestyle, including assessments and reflection of health decisions.

*Transfer Credit: Transfers to CSU*

**HS 24**

**Environmental Health**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores the environmental factors that affect public health, including air and water pollution, climate change, food safety, waste management, and workplace health. Discusses fundamentals of managing environmental health problems on a community level and reducing environmental impact as individuals.

*Transfer Credit: Transfers to CSU; UC pending review*

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**HISTORY**

**Human Arts and Social Sciences Division**

Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

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**Information for History Majors**

History provides students with the basic information necessary for analyzing the major political, diplomatic, economic and social conditions affecting today's society. The historical process develops analytical skills and fosters an understanding of the world through a study of the past, both remote and recent. The program at Cabrillo offers a solid core curriculum in U.S. History and Western Civilization and emphasizes a multicultural approach to history in its adjunct offerings. Courses in Chicano, Women's, and Asian history are regularly offered. Topics of ethnic diversity and women's experiences are regularly incorporated into all classes. In addition, Cabrillo offers a strong program in local and regional history. The chronological, geographical and topical range of offerings in the history department affords great flexibility for students working toward degrees in history and those who wish to give a historical dimension to their studies in other disciplines.

A history major usually transfers to a four-year institution to complete a Bachelor's Degree. History is excellent preparation if one is considering careers in teaching, law, business, communications, journalism, librarianship, archival and research work, public administration and a wide variety of public service and government careers. Professional schools in these and related fields are looking for students who can weigh conflicting evidence, evaluate alternative courses of action or divergent points of view, and express conclusions logically and clearly.
MODEL PROGRAM FOR HISTORY

The following model program fulfills requirements for the A.A. Degree in History at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

World History - choose one from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2A</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2B</td>
<td>3</td>
</tr>
<tr>
<td>HIST 6</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16A</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16B</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16C</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19A</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19B</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19C</td>
<td>3</td>
</tr>
</tbody>
</table>

Western Civilization—choose one from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4A/4AH</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4B/4BH</td>
<td>3</td>
</tr>
</tbody>
</table>

United States History—choose one from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 17A/17AH</td>
<td>3</td>
</tr>
<tr>
<td>HIST 17B/17BH</td>
<td>3</td>
</tr>
<tr>
<td>HIST 18A</td>
<td>3</td>
</tr>
<tr>
<td>HIST 18B</td>
<td>3</td>
</tr>
<tr>
<td>HIST 21A/21AH</td>
<td>3</td>
</tr>
<tr>
<td>HIST 21B/21BH</td>
<td>3</td>
</tr>
<tr>
<td>HIST 29A</td>
<td>3</td>
</tr>
<tr>
<td>HIST 29B</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one to two additional courses from any of the three areas listed above. Courses that meet the multicultural requirement include: HIST 2AB, HIST 6, HIST 16ABC, HIST 18AB, HIST 19ABC, HIST 21AB, 21AH/BH, and HIST 29AB.

Choose 9-12 elective units from the following list:

Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>HIST 2B</td>
<td>3</td>
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<tr>
<td>HIST 4A/4AH</td>
<td>3</td>
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<tr>
<td>HIST 4B/4BH</td>
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<tr>
<td>HIST 6</td>
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<tr>
<td>HIST 14</td>
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<td>HIST 17A/17AH</td>
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<tr>
<td>HIST 17B/17BH</td>
<td>3</td>
</tr>
<tr>
<td>HIST 18A</td>
<td>3</td>
</tr>
<tr>
<td>HIST 18B</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19A</td>
<td>3</td>
</tr>
</tbody>
</table>

HIST 19B Introduction to Chinese History  
HIST 19C Introduction to Japanese History  
HIST 20A-Z American Studies  
HIST 21A/21AH Chicano History to 1865  
HIST 21B/21AH Chicano History since 1865  
HIST 24 History of California  
HIST 25A Santa Cruz County and the Monterey Bay Region to 1890  
HIST 25B Santa Cruz County and the Monterey Bay Region since 1890  
HIST 26A-Z Topics in Local and Regional History  
HIST 29A African American History to 1865  
HIST 29B African American History since 1865  
HIST 39A-Z Historical Studies  

Choose 6 elective units from the following list:

From Related Disciplines:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHR 1/1H Introduction to Anthropology: Biological</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>ANTHR 2  Introduction to Anthropology: Cultural</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>ANTHR 3  Introduction to Anthropology: Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1A  Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2   Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>PS 2     Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 1  General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1/1H Introduction to Sociology: Understanding Society</td>
<td>3</td>
</tr>
</tbody>
</table>

Prospective History majors are encouraged to consult a history instructor regarding recommended elective courses.

Associate of Arts Degree in History

General Education  
History Core Courses  
Approved History Electives  
Other Electives (any course numbered 1-199)  
Total for A.A. Degree in History

History Courses

HIST 2A World History to 1500

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on major regions of the world, (Asia, Africa, Europe, North and South America), and their interactions until the year 1500, emphasizing belief systems, environmental transformations, issues of family and gender, as well as political and economic organization. Critical, analytical written work is the primary means of evaluation.

Transfer Credit: Transfers to CSU, UC.
HIST 2B
World History: 1500 to Present
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on major regions of the world, (Asia, Africa, Europe, North and South America), and their interactions since the year 1500, emphasizing belief systems, environmental transformations, issues of family and gender, as well as political and economic organization. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 4A
Survey of Western Civilization to 1648
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on the social, economic, political, and cultural history of Western civilization up to 1648: ancient Greek, Roman, Medieval, Renaissance, and Reformation topics are covered with special emphasis on the issues of religion and gender. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 4AH
Honors Survey of Western Civilization to 1648
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Focuses on the social, economic, political, and cultural history of Western civilization up to 1648: ancient Greek, Roman, Medieval, Renaissance, and Reformation topics are covered with special emphasis on the issues of religion and gender. Critical, analytical written work is the primary means of evaluation. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU, UC.

HIST 4B
Survey of Western Civilization–1648 to Late 20th Century
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on the social, economic, political, and cultural history of Western civilization since 1648: emphasizing nationalism, rationalism, gender, industrialization, imperialism, and the World Wars. Critical, analytical written work is the primary means of evaluating student performance in this course.
Transfer Credit: Transfers to CSU, UC.

HIST 4BH
Honors Survey of Western Civilization–1648 to Late 20th Century
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Focuses on the social, economic, political, and cultural history of Western civilization since 1648: emphasizing nationalism, rationalism, gender, industrialization, imperialism, and the World Wars. Critical, analytical written work is the primary means of evaluating student performance in this course. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU, UC.

HIST 6
History of the Middle East
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the history of the Middle East, with emphasis on religious, political, cultural, economic, and demographic factors. Major topics may include early societies, Mohammed and Islam, the Ottoman Empire, Imperialism, Colonialism and Nationalism, Revolutions, Western involvement in the Middle East, Israeli-Arab conflicts, OPEC, and the Rise of Fundamentalism.
Transfer Credit: Transfers to CSU, UC.

HIST 9
History of England
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the social, cultural, and political history of England including early and medieval Britain, constitutionalism, imperialism, the World Wars, and contemporary developments. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC pending review.

HIST 14
Women in America
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. history, examines the social, economic, and political history of women. Analyzes the role women have played in the United States and the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.
HIST 15
Recent American History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys political, social, cultural, and diplomatic events in the twentieth century, from the progressive era through WWI, the 20s, the Great Depression, WWII, the Cold War, 60s, 70s, and 80s. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 16A
Latin America to 1825
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on social, political, economic, and diplomatic history of Latin America from the Pre-Columbian period through the late 15th to early 19th centuries examining conquest, resistance, and dissolution of colonial rule. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 16B
Latin America since 1825
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on social, political, economic, and diplomatic history of Latin America from the early 19th to late 20th centuries. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 16C
History of Mexico
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on the social, political, and economic history of Mexico from Pre-Columbian civilizations through the Hispanic conquest to the present. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 17A
United States History to 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys American history, tracing the development of American ideals and institutions from the precocolonial and colonial periods through the American Revolution, the establishment of the Constitution, early national and antebellum eras, and the Civil War. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 17AH
Honors United States History to 1865
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Surveys American history, tracing the development of American ideals and institutions from the precocolonial and colonial periods through the American Revolution, the establishment of the Constitution, early national and antebellum eras, and the Civil War. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU, UC.

HIST 17B
United States History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys the political, economic, social, and diplomatic developments of the United States from the Reconstruction period to the present. Emphasis is placed on the historical backgrounds of contemporary American policies and problems. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

HIST 17BH
Honors United States History since 1865
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Surveys the political, economic, social, and diplomatic developments of the United States from the Reconstruction period to the present. Emphasis is placed on the historical backgrounds of contemporary American policies and problems. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU, UC.

HIST 18A
Asian American History: Chinese, Japanese, and Korean Americans
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. History, examines the history of Chinese-Americans, Japanese-Americans, and Korean-Americans. Includes the immigrant experience, legal and social discrimination and resistance to discrimination, family life, economic struggles and successes, and contributions made by each of the groups. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.
HIST 18B
Asian American History: Filipino, Asian Indian and Southeast Asian Americans
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

In the context of general U.S. History, examines the history of Filipino Americans, Asian Indian Americans, and Southeast Asian Americans. Analyzes the role that Asian Americans have played and the changes that role has undergone. Includes the overall immigrant experience, legal and social discrimination and resistance to discrimination, family life, economic struggles and successes, and the contribution made by each of the groups. Critical, analytical, written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 19A
Introduction to South and Southeast Asian History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Analyzes the general features of South and Southeast Asia’s society, economy, government, religion, philosophy, and the arts. Also includes the impact of the West, the search for a new culture, and the background of contemporary social and political problems. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 19B
Introduction to Chinese History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines the general outlines of Chinese history, along with more focused attention on themes such as expansion of the Chinese empire, philosophical and cultural developments, economic change, family, gender and daily life, and political movements.
Transfer Credit: Transfers to CSU, UC.

HIST 19C
Introduction to Japanese History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Emphasizes the general features of Japan’s society, economy, government, religion, philosophy and art. Critical, analytical written work is the primary means of evaluating student performance in this course.
Transfer Credit: Transfers to CSU, UC.

HIST 20A-Z
American Studies
1-3 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Traces the development and analyzes a particular facet of American history, e.g., of United States foreign policy, American popular culture, the Civil War, etc. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outlines, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

HIST 21A
Chicano History to 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

In the context of general U.S. history, traces the cultural, economic, literary, and political history of the Mexican in the first half of U.S. History. Covers the scope of U.S. History to 1865, analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 21AH
Honors Chicano History to 1865
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.

In the context of general U.S. history, traces the cultural, economic, literary, and political history of the Mexican in the first half of U.S. History. Covers the scope of U.S. History to 1865, analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 21B
Chicano History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

In the context of general U.S. History, traces the development of the Chicano in the United States from 1865 to the present. Covers the scope of U.S. History; analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Gives emphasis to the role and life of the Mexican American residing in California. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. history requirement.
Transfer Credit: Transfers to CSU, UC.
HIST 21BH
Honors Chicano History since 1865
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
In the context of general U.S. History, traces the development of the Chicano in the United States from 1865 to the present. Covers the scope of U.S. History; analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Gives emphasis to the role and life of the Mexican American residing in California. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. history requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 23
History of Contemporary Chicano Movements
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the origins of the growing politicalization among Mexican-Americans, with emphasis on the roles of particular groups such as the Brown Berets, the United Mexican-American Students, the Mexican-American Student Confederation, the Crusade for Justice, the Alianza, and the National Farm Workers Union.
Transfer Credit: Transfers to CSU, UC.

HIST 24
History of California
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Analyzes the history of California and its diverse peoples, with attention to regional, national, and global contexts. Addresses social, political, and economic issues unique to the history of California in the context of broader U.S. history. Critical, analytical written work of at least 4000 words is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 25A
Santa Cruz County and the Monterey Bay Region to 1890
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies social, political, and economic history of the Santa Cruz County area beginning with native Californians and ending in 1890, with an emphasis on the contribution of ethnic minorities, women, and labor.
Transfer Credit: Transfers to CSU.

HIST 25B
Santa Cruz County and the Monterey Bay Region since 1890
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores the history of Santa Cruz County from the 1890s to the present, including economic, political, and social development of the entire Monterey Bay region with an emphasis on the contributions of ethnic minorities, women, and labor.
Transfer Credit: Transfers to CSU.

HIST 26A-Z
Topics in Local and Regional History
1-3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Analyzes various topics in the social, political, and economic history of the Monterey Bay Region.
Transfer Credit: Transfers to CSU.

HIST 29A
African American History to 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. history, surveys the history of African Americans from the early colonial period up to 1865, including emphasis on background issues which have influenced contemporary and modern problems and contributions. Analyzes the role that African Americans have played in the United States and on the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 29B
African American History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. history, surveys the history of African Americans from 1865 to the present, including emphasis on contemporary and modern problems and contributions. Analyzes the role that African Americans have played in the United States and on the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 39A-Z
Historical Studies
1-3 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides intensive study of some aspect of world history for advanced history students. Course content will vary with each offering, as will prerequisites. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.
HORTICULTURE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Peter Shaw, Program Chair, (831) 479-6241
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Horticulture Occupational Program
The horticulture program prepares students for entry level to management jobs and self-employment in diverse horticulture businesses. It also provides a foundation for people transferring to four-year programs in Ornamental Horticulture and Landscape Architecture. It affords local horticulturists and working professionals the means to upgrade their skills and knowledge. Opportunities to obtain valuable experience are provided in the greenhouse/garden facility and by working to enhance campus landscapes.

DEGREES AND CERTIFICATES
The college offers two A.S. Degrees, two Certificates of Achievement and nine Skills Certificates in Horticulture. Students may obtain an A.S. Degree in General and Crop Production or Landscape Horticulture. Students may earn only one A.S. Degree. Separate certificates may be obtained in both areas of concentration.

ASSOCIATE IN SCIENCE DEGREE: GENERAL HORTICULTURE AND CROP PRODUCTION
Core Courses

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>HORT 1A</td>
<td>Basic Horticulture</td>
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<tr>
<td>HORT 1B</td>
<td>Basic Horticulture: Crop Production</td>
<td>4</td>
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<td>HORT 2</td>
<td>Soil Science and Management</td>
<td>4</td>
</tr>
<tr>
<td>HORT 54</td>
<td>Greenhouse Design and Operation</td>
<td>3</td>
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<tr>
<td>HORT 58</td>
<td>Irrigation System Design and Installation</td>
<td>4</td>
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<tr>
<td>HORT 62</td>
<td>Fall Plant Materials and Design</td>
<td>3</td>
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<td>HORT 100A</td>
<td>Plant Propagation</td>
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<td>HORT 125</td>
<td>Introduction to Hydroponic Food Production</td>
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<td>HORT 150</td>
<td>Pest Management</td>
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<tr>
<td>HORT 199C</td>
<td>Career Work Experience Education</td>
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Approved Electives: Any Horticulture course 3

Total for A.S. Degree in General Horticulture and Crop Production 60

ASSOCIATE IN SCIENCE DEGREE: LANDSCAPE HORTICULTURE
Core Courses

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<td>Business Aspects of Horticulture</td>
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<td>OR</td>
<td>HORT 164 California Native Plants and Plant Communities</td>
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<td>Landscape Construction</td>
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<td>OR</td>
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<td>HORT 60A</td>
<td>Landscape Gardening</td>
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<td>Landscape Design Graphics</td>
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<td>Landscape Design: Theory and Process</td>
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Total for A.S. Degree in Landscape Horticulture 60

CERTIFICATES OF ACHIEVEMENT: HORTICULTURE
Certificate of Achievement: Landscape Horticulture

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Total for Certificate of Achievement in Landscape Horticulture 42

Certificate of Achievement: Greenhouse and Nursery Management

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Total for Certificate of Achievement in Greenhouse and Nursery Management 39

SKILLS CERTIFICATES IN HORTICULTURE
Skills Certificate: Arboriculture

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<td>HORT 162PR</td>
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<td>HORT 172</td>
<td>Arboriculture</td>
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Total for Skills Certificate in Arboriculture 14½

Skills Certificate: General Horticulture

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Total for Skills Certificate in General Horticulture 16

ASSOCIATE IN SCIENCE DEGREE: LANDSCAPE HORTICULTURE
Certificate of Achievement: Landscape Horticulture

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Total for A.S. Degree in Landscape Horticulture 60
### Horticulture Courses

**Skills Certificate: Greenhouse and Nursery Management**

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<td>HORT 120</td>
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<tr>
<td>HORT 125</td>
<td>Introduction to Hydroponic Food Production</td>
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<tr>
<td>HORT 150</td>
<td>Pest Management</td>
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Total for Skills Certificate in Greenhouse and Nursery Management 16

**Skills Certificate: Home Horticulture**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HORT 1A</td>
<td>Basic Horticulture</td>
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<tr>
<td>HORT 60A</td>
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<td>HORT 100A</td>
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<td>HORT 160B</td>
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Total for Skills Certificate in Home Horticulture 15

**Skills Certificate: Landscape Construction**

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<tr>
<td>HORT 2</td>
<td>Soil Science and Management</td>
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<tr>
<td>HORT 57</td>
<td>Landscape Construction</td>
<td>3</td>
</tr>
<tr>
<td>HORT 58</td>
<td>Irrigation System Design and Installation</td>
<td>4</td>
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<tr>
<td>HORT 62</td>
<td>Fall Plant Materials and Design</td>
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<td>OR</td>
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</tr>
<tr>
<td>HORT 63</td>
<td>Spring Plant Materials and Design</td>
<td>3</td>
</tr>
<tr>
<td>HORT 65</td>
<td>Landscape Design Graphics</td>
<td>2</td>
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<tr>
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<td>Landscape Design: Theory and Process</td>
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<td>HORT 175</td>
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Total for Skills Certificate in Landscape Construction 16

**Skills Certificate: Landscape Design**

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<td>HORT 62</td>
<td>Fall Plant Materials and Design</td>
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<td>HORT 63</td>
<td>Spring Plant Materials and Design</td>
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<tr>
<td>HORT 175</td>
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Total for Skills Certificate in Landscape Design 16

**Skills Certificate: Landscape Gardener**

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<tbody>
<tr>
<td>HORT 58</td>
<td>Irrigation System Design and Installation</td>
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<tr>
<td>HORT 60A</td>
<td>Landscape Gardening</td>
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<td>HORT 62</td>
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<td>HORT 63</td>
<td>Spring Plant Materials and Design</td>
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<td>HORT 162PR</td>
<td>Landscape Pruning</td>
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<td>HORT 199C</td>
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Total for Skills Certificate in Landscape Gardener 15½

**Skills Certificate: Restoration Landscaping**

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<td>HORT 2</td>
<td>Soil Science and Management</td>
<td>4</td>
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<tr>
<td>HORT 57</td>
<td>Landscape Construction</td>
<td>3</td>
</tr>
<tr>
<td>HORT 62</td>
<td>Fall Plant Materials and Design</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HORT 63</td>
<td>Spring Plant Materials and Design</td>
<td>3</td>
</tr>
<tr>
<td>HORT 164</td>
<td>California Native Plants and Plant Communities</td>
<td>2</td>
</tr>
<tr>
<td>HORT 170</td>
<td>Restoration Landscaping</td>
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</table>

Total for Skills Certificate in Restoration Landscaping 15

**Skills Certificate: Alternative Crop Production Methods**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>HORT 1A</td>
<td>Basic Horticulture</td>
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<tr>
<td>HORT 2</td>
<td>Soil Science and Management</td>
<td>4</td>
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<tr>
<td>HORT 120</td>
<td>Organic Agriculture</td>
<td>3</td>
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<tr>
<td>HORT 125</td>
<td>Introduction to Hydroponic Food Production</td>
<td>1</td>
</tr>
<tr>
<td>HORT 150</td>
<td>Pest Management</td>
<td>4</td>
</tr>
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</table>

Total for Skills Certificate in Alternative Crop Production Methods 16

**Horticulture**

**HORT 1A**

**Basic Horticulture**

4 units; 3 hours Lecture, 3 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Surveys the horticulture industry emphasizing plant forms, growth and development, and identifying sustainable techniques for landscaping, ornamental plant and food production systems.

*Transfer Credit: Transfers to CSU.*

**HORT 1B**

**Basic Horticulture: Crop Production**

4 units; 3 hours Lecture, 5 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Surveys the production of ornamental and landscape plants to gain a working knowledge of how light, temperature, water, fertilizers, and soil-less media interact in a controlled environment. Also covers pest management and propagation of selected ornamentals.

*Transfer Credit: Transfers to CSU.*

**HORT 2**

**Soil Science and Management**

4 units; 3 hours Lecture, 3 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Examines physical, chemical and biological composition of soils, local soil formations, methods of soil sampling and testing, fertilizer and liming techniques, production and use of organic and chemical fertilizers, green manures and relationship between soils and human culture. Also includes the use and testing of soils for production plus septic and gray water systems.

*Transfer Credit: Transfers to CSU.*

**HORT 52**

**Greenhouse Design and Operation**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Presents the design and management of commercial and residential greenhouses including site analysis, greenhouse styles, glazing, circulation, cooling, venting, heating systems, and control systems. This class also covers general growing conditions of plants in a controlled environment. The business of nurseries and greenhouses is also covered briefly.

*Transfer Credit: Transfers to CSU.*
HORT 54
Business Aspects of Horticulture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces topics relevant to starting and managing a horticultural business, including developing a business plan, sales and marketing, record keeping and responsibilities of employers.
Transfer Credit: Transfers to CSU.

HORT 57
Landscape Construction
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Presents an overview of the landscape contracting industry and provides hands-on experience with landscape construction techniques including site layout and preparation, planting, interlocking pavers, retaining walls, wood construction and water features as well as bidding and estimating projects.
Transfer Credit: Transfers to CSU.

HORT 58
Irrigation System Design and Installation
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces the fundamentals of residential and commercial irrigation system design and installation using PVC, poly pipe and drip systems, programming irrigation clocks, mainline connection, valve installation and diagnosing system problems.
Transfer Credit: Transfers to CSU.

HORT 60A
Landscape Gardening
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces principles and applications of residential landscape design, installation and maintenance including pruning, construction, plant selection, use of new and recycled materials, and water conserving concepts.
Transfer Credit: Transfers to CSU.

HORT 62
Fall Plant Materials and Design
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Covers the identification of 100 of the plants used in local landscapes including ornamental grasses, perennials, trees and shrubs. Also covers selecting proper plants for landscape needs including flowering trees and plants for hedges, screens and espaliers. Field trips to local landscapes included.
Transfer Credit: Transfers to CSU.

HORT 63
Spring Plant Materials and Design
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Covers the identification of approximately 100 of the plants used in local landscapes including ornamental grasses, perennials, trees and shrubs. Also covers selecting proper plants for landscape needs including flowering trees and plants for hedges, screens and espaliers. Field trips to local landscapes included.
Transfer Credit: Transfers to CSU.

HORT 65
Landscape Design Graphics
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces landscape design graphics using various media including pencil, ink, and colored pencils to create base plans, plan views, elevation and perspective drawings. Also introduces the principles of landscape design.
Transfer Credit: Transfers to CSU.

HORT 66
Landscape Design: Theory and Process
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Presents principles of landscape design theory and process including graphics, problem solving, and presentation skills through residential site analysis, program development, case studies, client interaction and site measurement.
Transfer Credit: Transfers to CSU.

HORT 100A
Plant Propagation
1 unit; 3 hours Laboratory
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Presents techniques in plant propagation including seed collection, handling and sowing as well as producing plants from cuttings, layering, leaf pieces, division, and grafting. Topics include equipment and facilities commonly used in nursery and greenhouse production, appropriate chemicals and hormones, growing mediums and fertilizers appropriate for propagation, sanitation procedures, propagation scheduling, lining out and potting up.

HORT 120
Organic Agriculture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces organic agriculture with an emphasis on organic food production and a practical understanding of the philosophy, principles and practices of organic crops.
HORT 125
Introduction to Hydroponic Food Production
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Introduces concepts and practices of growing food crops hydroponically, including set up, nutrient solution preparation, lighting needs and pest control.

HORT 150
Pest Management
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Introduces the concepts and practices of integrated pest management emphasizing identification of insects, vertebrates, diseases and weeds in managed landscapes, crops, nurseries and greenhouses on the Central Coast. Covers pesticide use and safety and the techniques of integrated pest management including: biological control, resistant varieties, cultural controls and mixed cropping.

HORT 156A
Landscape Equipment Operation
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Introduces the proper use and selection of the equipment used in the landscape maintenance business including mowers, string trimmers, blowers, and aerators. Safety, basic repairs and maintenance will also be covered.

HORT 160B
Edible Landscaping
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Emphasizes the basic principles of home food production; including fruit, nut, herb and vegetable crops best suited to Santa Cruz County, soil preparation and propagation mixes, fertilizer use, care and use of garden tools and pest control techniques.

HORT 161
Soil Conservation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Presents soil erosion control and soil quality problems within urban and native land soils affected by human activities by assessing soil conditions, using soil surveys and preparing an erosion control plan. Evaluation of watershed restoration techniques is also covered.

HORT 162A-ZZ
Current Topics in Horticulture
0.5-4 units; 0.5 hour Lecture or 1.5 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100
Selected topics in horticulture not covered by regular catalog offerings. Each special topic course will be announced, described and given its own title and letter designation in the schedule of classes. The structure and format of each class will vary depending on the subject matter and may consist of lecture, lab, or both.

HORT 164
California Native Plants & Plant Communities
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Covers the identification of native plants and their best uses in the developed landscape, and includes discussion of the diverse native plant communities of California.

HORT 165
The Therapeutic Garden
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Introduces the use of plants, landscapes, and plant-related activities in improving the health and well being of people by focusing on the therapeutic and rehabilitative treatment of people with special needs. Also covers the design of accessible landscapes, the vocational potentials of horticultural therapy working in service programs within hospitals, nursing homes, correctional facilities, alcohol rehabilitation centers, and vocational training centers.

HORT 170
Restoration Landscaping
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Explores the theory and practice of restoring native landscapes with the goal of promoting biodiversity, mimicking natural habitats, solving erosion problems and assessing compromised soil situations. Techniques such as grazing and burning to control invasive exotic plants, will be covered as well as the preservation of fragile plant communities, and propagation and seed collection methods. Field trips to local restoration sites included.

HORT 172
Arboriculture
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Introduces the care and management of trees in the landscape providing preparation for the International Society of Arboriculture (ISA) certification exam and covers the selection, training, protecting, fertilizing and the basics of pruning. Soil, water and nutrient management and plant biology will be discussed as well as the operation of a tree maintenance business. Trees common to the ISA exam will also be covered.
HORT 175
Sustainable Landscaping
2 units; 2 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Introduces sustainable landscaping theories and practices including designing and maintaining ecologically sound landscapes as well as renovating existing gardens with living walls, green roofs, permeable hard-scapes and rainfall catchment systems.

HUMAN SERVICES
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Patrick Meyer, Program Chair, (831) 479-6210
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6348 or (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Human Services Occupational Program
Designed for students and paraprofessionals, this program provides an overview of the field of Human Services and explores issues and dynamics within the social services delivery system. A second specialization in Drug and Alcohol Studies prepares students for work in the Drug and Alcohol treatment field.
Students will participate in both an academic course of study and a work-based learning experience focusing on the history, theory, development, and implementation of our society’s responses to human needs. Program participants will develop knowledge of the issues related to Human Services and build competencies in practice interventions, strategies, technologies and resources for the delivery of Human Services.

The program explores strengths-based models along with studying diversity in the Human Services including social, political, and cultural influences. Students can expect to increase competency in technological skills, build effective communication skills in helping relationships and develop creativity, critical thinking, teamwork, and ethics. Course work prepares students for higher education in Social Work, Psychology, Health/Human Services, Human Resources, and Community Studies. Career opportunities might include employment in such paraprofessional positions as Social Work Assistants, Community advocates for children, adults, or families at risk, Case Managers, Counselors, Alcohol or Drug Abuse Counselors, Eligibility and Outreach Workers, Community Health Outreach Workers, Job Training Specialists, Legal Aid Paraprofessionals, Residential Counselors, Mental Health Technicians, Gerontology Aides, Probation Officers, and many more.

Human Services Core Courses

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<tr>
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<td>HSERV 50</td>
<td>Introduction to the Human Services</td>
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<tr>
<td>HSERV 51</td>
<td>Practices in the Human Services</td>
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<tr>
<td>HSERV 52</td>
<td>Introduction to Counseling and Case Management</td>
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<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
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<tr>
<td>PSYCH 39ABC</td>
<td>Relationships: Marriage and the Family</td>
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Total Human Services Core Courses 15

Human Services Generalist Practice Core Courses

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<td>COMM 12</td>
<td>Intercultural Communication</td>
<td>3</td>
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<tr>
<td>HSERV 99SL</td>
<td>Service Learning in the Human Services</td>
<td>2</td>
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<td>PSYCH 37ABC</td>
<td>Values and Decision Making</td>
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<tr>
<td>SOC 2/2H</td>
<td>Contemporary Social Problems</td>
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Total Human Services Generalist Practice Core Courses 11

Drug and Alcohol Studies Core Courses

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Approved Electives

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<td>Microsoft Word</td>
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<td>CG 1</td>
<td>College Success</td>
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<tr>
<td>CG 60A</td>
<td>Introduction to Peer Counseling</td>
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<td>COMM 12</td>
<td>Intercultural Communication</td>
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<tr>
<td>ECE 31</td>
<td>Child Growth and Development</td>
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<tr>
<td>ECE 32</td>
<td>Child, Youth, Family, and Community</td>
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<td>MA 184</td>
<td>Health Care Communication and Etiquette</td>
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<tr>
<td>PE 12A</td>
<td>First Aid: Responding to Emergencies</td>
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<tr>
<td>PSYCH 8</td>
<td>Introduction to Developmental Psychology</td>
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<td>PSYCH 31</td>
<td>Introduction to Abnormal Psychology</td>
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<td>PSYCH 33</td>
<td>Personal and Social Adjustment</td>
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<tr>
<td>PSYCH 35ABC</td>
<td>Death and Dying</td>
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<td>PSYCH 37ABC</td>
<td>Values and Decision Making</td>
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<td>Contemporary Social Problems</td>
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<td>SPAN 1</td>
<td>Beginning Spanish (or appropriate level)</td>
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<td>WS 7</td>
<td>Psychology of Women</td>
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<td>WS 1</td>
<td>Introduction to Women’s Studies</td>
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Associate in Science Degree in Human Services

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Certificate of Achievement in Human Services Generalist Practice

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Human Services Generalist Practices Courses

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Certificate of Achievement in Human Services Generalist Practice

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Human Services Courses

HSERV 50
Introduction to the Human Services
3 units; 3 hours Lecture
Corequisite: HSERV 99SL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an overview of the field of Human Services exploring issues and dynamics within the Social Services delivery system. Focuses on an introduction to professional skills and an analysis of historical and contemporary social service systems.
Transfer Credit: Transfers to CSU.

HSERV 51
Practices in the Human Services
3 units; 3 hours Lecture
Corequisite: HSERV 99SL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on appropriate interventions, technologies, and strategies for the delivery of Human Services. Practical knowledge in case management, referral, home visitation, alcohol and drug abuse, HIV, STD, abuse, neglect, gerontology, disability, and other issues.
Transfer Credit: Transfers to CSU.

HSERV 52
Introduction to Counseling and Case Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an introduction to the basic theories and techniques of interviewing, counseling, and case management in the Human Services. Explores the counseling process, compares theoretical approaches, and discusses ethical issues in service provision.
Transfer Credit: Transfers to CSU.

HSERV 53
Techniques of Group Counseling in the Human Services
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an orientation to group dynamics, group leadership, and group intervention strategies in a variety of Human Service settings. Examines various kinds of groups and basic facilitation skills for group leaders. Introduces group work interventions with specific populations including substance abusers, at-risk youth, and older adults.
Transfer Credit: Transfers to CSU.

HSERV 59A-Z
Special Topics in the Human Services
0.5-3 units; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A series of intensive courses studying specific concepts, issues, and concerns within the Human Services Field. Course content and prerequisites will vary with each offering. During any school session, one or more such courses may be offered, each one having its own title and being designated by its own permanent letter.
Transfer Credit: Transfers to CSU.
HSERV 99SL  
**Service Learning Work Experience Education**  
0.5 - 3 Units; 1.8 hours Work  
Repeatability: May be taken 4 times. Students may earn up to 6 units of credit in service learning or general CWEE through any combination or repetition of CWEE 99G, CWEE 199G, CWEE 99SL and CWEE 199SL. Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Service Learning integrates community service with academic learning focusing on meeting unmet community needs and achieving course objectives. The program combines classroom instruction with volunteer on-the-job experience, utilizing the community’s business, industry and government agencies as expanded educational sites. The student may receive one unit per 60 hours unpaid work experience. CWEE 99G is designed for the student who intends to transfer to a 4-year institution that accepts Service Learning/Work Experience Education.

**HSERV 160**  
**Introduction to Chemical Dependency Issues**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Provides an introductory level understanding of mood altering substances, their patterns of use and the dynamics of addiction and treatment. Discusses historical perspectives on alcohol and drug abuse and its impact on families and the community; the biopsychosocial factors that contribute to the use of drugs and alcohol; patterns and progression of chemical addiction, treatment and prevention programs; and legislation regarding use, abuse, and addiction to drugs and alcohol and the chemical dependency treatment field.

**HSERV 161**  
**Alcoholism and Drug Addiction: Intervention, Treatment and Recovery**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Studies techniques used in the treatment of chemical dependency and an evaluation of interventions, individual and group counseling, detoxification, twelve step programs, therapeutic communities, aftercare programs, and relapse prevention.

**HSERV 162**  
**Physiology and Pharmacology: Alcohol and Other Drugs**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Studies the action and effects of alcohol and other psychoactive drugs, including opiates, stimulants, depressants, psychotherapeutics, and psychedelics on the body’s organs and systems, behavior, cognition, and emotion. Discusses the physiological, social, and psychological implications of tolerance, habituation, and substance abuse of the user and abuser and reviews models and biomedical principles of the disease process and treatment of alcohol and drug abuse, addiction, the relapse dynamic, and the recovery process. Identifies and discusses medical terminology used in the field and develops an awareness of the medical complications associated with chronic drug use.

**HSERV 163**  
**Alcohol and Other Drugs: Education and Prevention Strategies**  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Provides insight and practice in the development of the educational component of alcohol and other drug treatment programs. Persons working in treatment or educational fields may find this course beneficial to already established programs. Considers topics, materials, and presentation issues as they relate to working with persons in recovery and their families.

**HSERV 164**  
**Ethics: Personal and Professional Growth in the Human Services**  
2-4 units; 2 hours Lecture  
Repeatability: May be taken 2 times. Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Explores the basic ethical, personal, and professional issues involved in the treatment of drug and alcohol abuse, mental health, issues related to aging, and issues related to the delivery of human services in general. Addresses professional ethics, current legal sanctions, specific questions regarding employment problems, patients’ rights, professional liability, and state and federal counseling regulations, confidentiality, counselor and clients’ rights, child and adult abuse issues, countertransference, stress management, and professional development.

**HSERV 170**  
**Fundamentals of Mental Health**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Introduces the principles and theories of mental health and human behavior: diagnosis, treatment and care. Examines the history of mental health practices and introduces the student to symptoms and classification systems, psychotropic medications, coping mechanisms, therapies and community care, and discusses ethical issues in the mental health field.

**HSERV 174**  
**Fundamentals of Children's Mental Health**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Introduces the principles and theories of infant, toddler and children’s mental health and mental illness. Examines child development, identifying abnormal mental development and explores options for treatment. Develops strategies to promote positive human service relationships with mentally ill children and their families.

**HSERV 180**  
**Disability and Society**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Explores disability as an element of human diversity and investigates the incidence and prevalence of disability around the world, the historical changes in concepts of disability, and the appreciation of disability as a natural human phenomenon that both influences and is influenced by the environment.
Humanities Courses

HUMAN 3
The Nuclear Age
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

A handful of nations now possess more than 50,000 nuclear weapons threatening our civilization with the most acute challenge it has ever faced. A series of lecturers from different disciplines and backgrounds will address this complex and disturbing issue. We will look at historical and technical developments which have shaped the nuclear age and at some of the social, political, economic, psychological and cultural consequences of these developments, as well as the prospects for peace.

Transfer Credit: Transfers to CSU, UC.

HUMAN 5
Cultures and Counter-cultures: America in the 1960s
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.

This course is an interdisciplinary, multi-cultural survey of the most explosive decade of the 20th century. Through poetry, music, biography, novels, videos, lectures by several instructors in their subject areas, and class discussions, students will examine the politics, arts, music and spirit of the decade in order to see themselves more clearly and form a better understanding of the present.

Transfer Credit: Transfers to CSU.

HUMAN 10
Humanities Colloquium
1-3 units; 1 hour Lecture
Repeatability: May be taken 2 times.
Corequisite: Concurrent enrollment in specified humanities course when appropriate.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An interdisciplinary seminar on topics in the humanities. Course will vary depending on original texts selected for discussion.

Transfer Credit: Transfers to CSU.

Italian Courses

ITAL 1
Beginning Italian
4 units; 4 hours Lecture
Corequisite: ITAL 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Develops speaking, listening comprehension, reading, and writing skills, with Italian as the primary language of instruction. Students communicate through class activities and begin study of Italian culture.

Transfer Credit: Transfers to CSU, UC.

ITAL 2
Elementary Italian
4 units; 4 hours Lecture
Prerequisite: ITAL 1 or two years of high school Italian with a grade of "C" or better, or the equivalent.
Corequisite: ITAL 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with Italian as the primary language of instruction. Students communicate through class activities and continue study of Italian culture.

Transfer Credit: Transfers to CSU, UC.

ITAL 3
Intermediate Italian
4 units; 4 hours Lecture
Prerequisite: ITAL 2 or equivalent.
Corequisite: ITAL 3.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Further develops skills acquired in first-year Italian and reviews and expands grammar and vocabulary. Students study Italian culture through reading and discussion of literary and cultural texts and develop writing skills.

Transfer Credit: Transfers to CSU, UC.
ITAL 10
Conversation
3 units; 3 hours Lecture
Prerequisite: ITAL 2 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students discuss culturally relevant topics and situations drawn from written and audio-visual sources.
Transfer Credit: Transfers to CSU, UC.

ITAL 50L
Italian Language Laboratory
1-4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of ITAL 1-2. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

INTERNATIONAL STUDIES
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6404
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for International Studies Majors
The program listed below is a pattern of courses leading to an Associate in Arts Degree only and does not meet the transfer requirement for the International Studies major. Students planning to transfer should consult the catalog of the university to which they intend to transfer.

Modern technology has permanently changed the character of life on this planet. With the speed of modern communication, events that occur half a world away-military, economic, political-impact us almost immediately. Given this global perspective, a major which examines the increasing interdependence of nations from several points of view-political, economic, historical and geographical-will best prepare today’s student to live in and contribute to the modern world.

This major is coming to be increasingly in demand. UC Davis, UC Santa Barbara, and UC Los Angeles have programs in international relations. Davis has a major in international relations, while UCSB and UCLA offer an emphasis within the political science major.

In the CSU system, CSU Chico and CSU San Francisco offer B.A. Degrees in international relations, and Fresno and Pomona offer M.A. Degrees. Business majors at many campuses offer an international emphasis within the major. In addition, there are a number of private schools, such as Monterey Institute and University of the Pacific, which have programs in this area, in some cases including post-bachelor’s degrees.

MODEL PROGRAM FOR INTERNATIONAL STUDIES

The following model program fulfills requirements for the A.A. Degree in International Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
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<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
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<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
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<td>Cultural Geography</td>
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<td>Survey of Western Civilization to 1648</td>
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<tr>
<td>HIST 4B</td>
<td>Survey of Western Civilization–1648 to Late 20th Century</td>
</tr>
<tr>
<td>PS 1/1H</td>
<td>Introduction to Government</td>
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<td>PS 2</td>
<td>Comparative Government</td>
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<tr>
<td>PS 3</td>
<td>International Relations</td>
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</tbody>
</table>

Choose 1 of the following series

- FR 1: Beginning French
- FR 2: Elementary French
- FR 3: Intermediate French
- FR 4: Intermediate French

OR

- GRMN 1: Beginning German
- GRMN 2: Elementary German
- GRMN 3: Intermediate German
- GRMN 4: Intermediate German

OR

- ITAL 1: Beginning Italian
- ITAL 2: Elementary Italian
- ITAL 3: Intermediate Italian

OR

- SPAN 1: Beginning Spanish
- SPAN 2: Elementary Spanish
- SPAN 3: Intermediate Spanish
- SPAN 4: Intermediate Spanish

Recommended

- MATH 12/12H: Elementary Statistics | 4 |

Associate of Arts Degree in International Studies

| General Education                         | 30 |
| Core Course                               | 15-18 |
| Required Language                         | 12-16 |
| Total for A.A. Degree in International Studies | 60 |
Japanese Courses

JAPAN 1
Beginning Japanese
4 units; 4 hours Lecture
Corequisite: JAPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops speaking, listening comprehension, reading, and writing skills, with Japanese as the primary language of instruction. Students communicate through class activities and begin study of Japanese culture.
Transfer Credit: Transfers to CSU, UC.

JAPAN 2
Elementary Japanese
4 units; 4 hours Lecture
Prerequisite: JAPAN 1 or two years of high school Japanese with a grade of “C” or better, or the equivalent.
Corequisite: JAPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with Japanese as the primary language of instruction. Students communicate through class activities and continue study of Japanese culture.
Transfer Credit: Transfers to CSU, UC.

JAPAN 50L
Japanese Language Laboratory
1-4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of JAPAN 1-2. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

Information for Journalism Majors
The Journalism transfer is designed to provide the lower division coursework needed for transfer to a 4-year university in Journalism or Mass Media. The major is available at most CSU campuses and some campuses of the University of California.

MODEL PROGRAM FOR JOURNALISM
The following model program fulfills requirements for the AA in Journalism at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>JOURN 21</td>
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<td>JOURN 23A</td>
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<td>ENGL 1B</td>
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<tr>
<td>OR</td>
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<td>ENGL 1BMC</td>
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Approved Electives

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<td>ART 28</td>
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<tr>
<td>AP 9A</td>
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</tr>
<tr>
<td>JOURN 20A</td>
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<tr>
<td>JOURN 35</td>
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</tr>
<tr>
<td>DM 1</td>
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<td>COMM 10</td>
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<td>OR</td>
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Associate in Arts Degree in Journalism

<table>
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<th>Category</th>
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<tr>
<td>Total for the A.A. Degree in Journalism</td>
<td>60</td>
</tr>
</tbody>
</table>

JOURNALISM

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Bradley Kava, Program Chair, (831) 477-3206
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs
Journalism Occupational Program

Cabrillo College's Journalism program is designed to give students hands-on experience in print journalism. It prepares students for jobs in journalism that don't require a bachelor's degree. Possible career opportunities include working as a stringer for a newspaper, producing newsletters for companies and organizations, free-lancing as a writer, or working as a photojournalist or in newspaper layout. Cabrillo's program offers a one-year Certificate of Achievement and a two-year Associate in Science Degree, as well as a two-year Associate in Arts Degree and/or transfer credit to four-year institutions for higher degrees.

### Core Courses

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<th>Units</th>
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### Approved Electives

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<td>3</td>
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<td>ART 28</td>
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<tr>
<td>JOURN 2</td>
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### Associate in Science Degree in Journalism

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### Certificate of Achievement in Journalism

<table>
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<tr>
<td>Approved Electives</td>
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<tr>
<td>ENGL 100 or 1A/1AH/1AMC/1AMCH or CABT 157</td>
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<tr>
<td>Total for Certificate of Achievement</td>
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</tr>
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</table>

## Journalism Courses

### JOURN 20A

**Introduction to Photojournalism**

3 units; 2 hours Lecture, 3 hours Laboratory

Repeatability: May be taken 2 times.

Prerequisite: AP 9A or equivalent experience.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces photojournalism, emphasizing the art of telling stories with photographs. Examines the photographic techniques, journalistic practices, and artistic concerns of the photojournalist, as well as the history and future of photojournalism. Students also provide the photographs for the college newspaper, *The Voice*. Requires access to a digital camera.

*Transfer Credit*: Transfers to CSU.

### JOURN 20B

**Press Photo Bureau**

3 units; 2 hours Lecture, 3 hours Laboratory

Repeatability: May be taken 2 times.

Prerequisite: JOURN 20A, AP 9A, AP 9B.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Trains photographers to shoot and process digital photos for the college newspaper's print edition and its companion online news website. Requires access to a digital camera.

*Transfer Credit*: Transfers to CSU.

### JOURN 21

**Mass Communications**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An examination of how mass communications help shape us, tell us what to think about, what to buy, how to act, and what to be. May be offered in a Distance-Learning Format.

*Transfer Credit*: Transfers to CSU, UC.

### JOURN 23A

**News Writing and Reporting**

3 units; 3 hours Lecture

Prerequisite: ENGL 1A/1AH/1AMC/1AMCH or equivalent experience.

Covers the basics of news gathering and writing for the print media.

*Transfer Credit*: Transfers to CSU, UC.

### JOURN 35

**Writing for the Broadcast Media**

3 units; 3 hours Lecture

Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.

A writing course designed to teach students the basics of writing for the broadcast media, including news, commercials, announcements, documentaries and dramatic writing.

*Transfer Credit*: Transfers to CSU.
JOURN 53
Newspaper Production
1-3 units; 3 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: DM 2 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Introduces design techniques and software to produce page layouts for the college newspaper.
Transfer Credit: Transfers to CSU.

LEARNING SKILLS
Joseph Napolitano, Director, Disabled Student Program and Services (DSP&S)
Division Office, Room 810
Deborah Shulman, Program Chair, (831) 479-6566
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
http://www.cabrillo.edu/programs

Learning Skills Courses

LS 200
Math Study Skills
1.5 units; 1.5 hours Lecture
Repeatability: May be taken 2 times.
Corequisite: Concurrent enrollment in a math class is recommended.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study skills and strategies designed to help students overcome difficulties in learning math. Especially helpful for those enrolled in Math 254 or Math 154. This course is pass/no pass.

LS 200L
Reduce Test Anxiety Lab
1 unit; 1.5 hours Laboratory
Prerequisite: LS 200 (may be taken concurrently).
Lab designed to improve test performance and reduce test anxiety using HeartMath software that increases student’s awareness of body/mind coherence for best performance. Techniques learned and practiced will improve student’s ability to learn and perform.

LS 203
Science Study Skills
1 unit; 1 hour Lecture
Repeatability: May be taken 2 times.
This class is designed to teach students the necessary study skills to increase their chances of success in physical and biological science courses.

LS 254
Diagnostic Assessment
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 3 times.
Provides individual diagnostic assessment and reassessment to determine eligibility for learning disabilities services. Testing includes academic (reading-writing-math), perceptual and aptitude areas. Test results are evaluated and the LD Specialist recommends appropriate classes, strategies, and services.

LS 255
Tutorial Instruction
0.5 unit; 1 hour Laboratory
Repeatability: May be repeated.
Recommended Preparation: LS 254 or other recent learning disability evaluation is highly advised.
Provides instructional assistance and assistive technology for students with Learning Disabilities and other students in the Disabled Students Program & Services. Students work with instructors and tutors in support of college-level classes and in basic skill areas.

LS 264
Study Skills
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Recommended for students with learning disabilities, but open to all students who need study skills improvement and learning strategies. Topics include traditional study skills with an emphasis upon organization, test-taking, problem solving, stress reduction, goal setting and memory strategies.

LS 264L
Applied Study Skills
0.5 unit; 1 hour Laboratory
Corequisite: LS 264.
Additional structured application of study skills learned in LS 264 to specific content of academic classes. Students create an individual study system based on study skills needs survey and actively apply their study system in order to improve overall academic performance.

LS 281
Strategies for Students with Learning Disabilities & Attention Deficit Disorder
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Recommended for all students interested in learning disabilities and/or attention deficit disorder. Students will acquire knowledge of learning disabilities and attention deficit disorder. Focus is on the importance of students understanding their individual strengths and weaknesses. Also emphasizes successful compensatory strategies, accommodations, communication with others about learning disabilities and attention deficit disorder, stress, organization, and time management skills.
LS 502
Supervised Tutoring for DSPS Students
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Prerequisite: Must be eligible for services through DSPS and/or the Learning Skills Program.
Provides drop-in tutorial assistance and assistive technology in a variety of areas for students with LD and other DSPS documented disabilities. Students work as needed in support of college-level classes and in basic skills areas.
(State approval pending for this course)

Liberal Studies: see Education

LIBERAL ARTS AND SCIENCES

Liberal Arts and Sciences Degrees
The Associate degrees in Liberal Arts and Sciences represent the completion of a broad area of study with an emphasis in Arts and Humanities, Social and Behavioral Science or Interdisciplinary Studies. Students complete the appropriate general education program (CSU General Education/Breadth, IGETC) and requirements for the emphasis. This degree is designed primarily for students who are transferring to the California State University or the University of California in a variety of majors. Study of a foreign language is recommended.

Emphasis in Arts and Humanities
The emphasis in Arts and Humanities enriches and expands students' knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and thought. Through study in the disciplines of literature, philosophy, and the fine and performing arts, students will engage in critical analysis, develop aesthetic judgments, and learn to appreciate the arts and humanities. Students will learn respect for cultural diversity and value the multiple voices which contribute to the health and vitality of society.

Students will be able to:

a) Demonstrate awareness of the scope and variety of works in the arts and humanities
b) Critically appreciate those works as expressions of individual and universal values within historical, social, and cultural contexts
c) Analyze the aesthetic qualities of works in the arts and humanities
d) Engage in the creative process of linguistic expression, philosophical reasoning, fine and performing arts, and analytical and creative writing
e) Develop and express informed personal responses to works in the arts and humanities

Select 18 units from the following courses:
Art History 10, 11, 11H, 12, 13, 14, 16#, 17#, 18#, 19#, 20A, 20B, 52#, 53, 77
Dance 10, 12#
Music 1, 5, 6, 10, 10M (82), 11A#, 11LA#, 12#, 13A#, 77, Theatre Arts 8#, 9, 10A, 77
French 1, 2, 3, 4, 10
German 1, 2, 3, 4, 10
History 2A#, 2B#, 4A, 4AH, 4B, 4BH
Italian 1, 2, 3, 10
Japanese 1, 2
Philosophy 4, 6, 7, 8, 9, 10, 10H 14#, 15#, 16
Sign Language Studies 1, 2, 3
Spanish 1, 2, 3, 4, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, 30B#

Emphasis in Social Sciences
The emphasis in Social Sciences increases students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

Students will be able to:

a) Employ the methods and data that historians and social/behavioral scientists commonly use to investigate the human condition
b) Identify important information resources in history and the social/behavioral sciences
c) Examine institutions and processes across a range of historical periods and social settings
d) Use and critique models and methods for explaining behavior
e) Articulate and analyze alternative approaches to the solution of contemporary social issues.

Select 18 units from the following courses:
Anthropology 2#, 3, 6#, 7#, 8#, 9#, 17#
Bilingual/Bicultural Studies 32#
Communication Studies 7, 12#
Early Childhood Education 31, 32
Economics 1A, 1B
Environmental Science 20
Geography 2#, 4#, 5
Health Science 15
Journalism 21
Political Science 1, 1H, 2, 3, 4, 5
Psychology 1, 6, 8, 12, 26, 31, 33
Sociology 1, 1H, 2#, 2H#, 3#, 5, 8#, 9#, 47
Women's Studies 1 (10), 2#, 11
Emphasis in Interdisciplinary Studies

The emphasis in Interdisciplinary Studies allows students to examine and integrate concepts from multiple perspectives, enriches and expands students’ knowledge of the human condition and human cultures, and increases students’ knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individual, groups, institutions, events, and ideas. Students will engage in critical analysis, develop aesthetic judgments, and learn to appreciate the arts and humanities. Such knowledge will prepare students for interdisciplinary transfer programs, and will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

Students will be able to:

a) Demonstrate awareness of the scope and variety of works in the arts and humanities
b) Critically appreciate those works as expressions of individual and universal values within historical, social, and cultural contexts
c) Analyze the aesthetic qualities of works in the arts and humanities
d) Engage in the creative process of linguistic expression, philosophical reasoning, fine and performing arts, and analytical and creative writing
e) Develop and express informed personal responses to works in the arts and humanities
f) Employ the methods and data that historians and social/behavioral scientists commonly use to investigate the human condition
g) Identify important information resources in history and the social/behavioral sciences
h) Examine institutions and processes across a range of historical periods and social settings
i) Use and critique models and methods for explaining behavior
j) Articulate and analyze alternative approaches to the solution of contemporary social issues.

Select 18 units from the following courses with at least one course from Group A and one course from Group B:

Group A

Art History 10, 11, 11H, 12, 13, 14, 16#, 17#, 18#, 19#, 20A, 20B, 52#, 53, 77
Dance 10, 12#
Music 1, 5, 6, 10, 10M (82), 11A#, 11LA#, 12#, 13A#, 77
Theatre Arts 8#, 9, 10A, 77
French 1, 2, 3, 4, 10
German 1, 2, 3, 4, 10
History 2A#, 2B#, 4A, 4AH, 4B, 4BH
Italian 1, 2, 3, 10
Japanese 1, 2
Philosophy 4, 6, 7, 8, 9, 10, 10H, 14#, 15#, 16
Sign Language Studies 1, 2, 3
Spanish 1, 2, 3, 4, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, 30B#

Group B

Anthropology 2#, 3, 6#, 7#, 8#, 9#, 17#
Bilingual/Bicultural Studies 32
Communication Studies 7, 12#
Early Childhood Education 31, 32
Economics 1A, 1B
Environmental Science 20
Geography 2#, 4#, 5
Health Science 15
Journalism 21
Political Science 1, 1H*, 2, 3, 4, 5*
Psychology 1, 6, 8, 12, 26, 31, 33
Sociology 1, 1H, 2#, 2H#, 3#, 5, 8#, 9#, 47
Women’s Studies 1 (10), 2#, 11

Associate in Arts Degree in Liberal Arts and Sciences

<table>
<thead>
<tr>
<th>Units</th>
<th><strong>General Education (CSU or IGETC)</strong></th>
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<tbody>
<tr>
<td>27-39</td>
<td>Emphasis Area</td>
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<tr>
<td>18</td>
<td>Electives (UC or CSU transferable)</td>
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<td></td>
<td>Total for A.A. Degree in Liberal Arts and Sciences</td>
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<tr>
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Associate in Arts Degree in Liberal Arts and Sciences (non-transfer)

<table>
<thead>
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<th>Units</th>
<th><strong>General Education (non-transfer pattern)</strong></th>
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<tbody>
<tr>
<td>30</td>
<td>Emphasis Area (chosen from list above)</td>
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<tr>
<td>18</td>
<td>Electives (courses numbered from 1 to 99)</td>
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<tr>
<td>12</td>
<td>Total for A.A. Degree in Liberal Arts and Sciences</td>
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<tr>
<td>60</td>
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</table>

Associate in Science Degree in Liberal Arts and Sciences (non-transfer)

<table>
<thead>
<tr>
<th>Units</th>
<th><strong>General Education (non-transfer pattern)</strong></th>
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<tbody>
<tr>
<td>21</td>
<td>Emphasis Area (chosen from list above)</td>
</tr>
<tr>
<td>18</td>
<td>Electives (courses numbered from 1 to 99)</td>
</tr>
<tr>
<td>21</td>
<td>Total for A.S. Degree in Liberal Arts and Sciences</td>
</tr>
<tr>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Two courses may be counted toward GE and the Area of Emphasis
*Satisfies the US History/Constitutions Requirement
# Satisfies the Cabrillo College Multicultural Requirement- (one course required which may be double counted)

LIBERAL STUDIES: see EDUCATION

LIBRARY SCIENCE/INFORMATION SCIENCE

Library Learning Resources Center
Johanna Bowen, Director
Library, Building 1000
Circulation, (831) 479-6473
http://libwww.cabrillo.edu
Library Science/Information Science

Information

A master's degree in Library Science/Information Science leads to a career in a variety of library settings, including school libraries, public libraries, and academic libraries. Admission to a library science or information science master's degree program requires a bachelor's degree. A student interested in librarianship usually has an academic major and transfers to a four-year institution to complete a bachelor's degree.

Library Science Courses

LIBR 10
Information Research
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches information literacy and research concepts, skills, and techniques. Covers online catalogs, full text databases, and Internet sites as well as library books and materials. Applies the process of access, evaluation, and utilization to selecting and interpreting quality information sources for the construction of works cited lists. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

LIBR 15A–Z
Special Topics in Library Research
1-3 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Intensive examination of some specialized aspects of libraries and other information resources and their use to meet academic or personal learning objectives.
Transfer Credit: Transfers to CSU.

LIBR 18
Advanced Internet Searching
1 unit; 1.5 hours Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches advanced Internet search techniques, with focus on using leading-edge strategies and resources. Topics include: finding resources excluded from general-purpose search tools; application of search engine limiters and expanders; how to organize and manage information resources once retrieved; how to transfer data, images, and other materials for personal file management.
Transfer Credit: Transfers to CSU.

LIBR 203
Tutoring Methods
1 unit; 1 hour Lecture
Repeatability: May be taken 4 times.
Teaches methods for tutoring, with special emphasis on managing groups, bridging cultural gaps, and tutoring students with disabilities.

LIBR 502
Supervised Tutoring
units; 5 hours Laboratory
Repeatability: May be repeated.
Offers drop-in tutorial assistance in both high school equivalence courses and in university transfer courses.

MATHMATICS
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Nancy Fetterman, Program Chair, (831) 479-6499
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Information for Mathematics Majors
The major in mathematics provides a broad foundation of problem solving and logical reasoning skills. The mathematics major learns to use patterns and relationships to analyze mathematical situations and solve a wide variety of problems.
Career opportunities include teacher, researcher, and statistician. Graduates work in private industry, government and many areas of technological research and computer-related fields.

MODEL PROGRAM FOR MATHEMATICS
The following model program fulfills requirements for the A.S./A.A. Degree in Mathematics at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5ABC</td>
<td>12</td>
</tr>
<tr>
<td>MATH 6</td>
<td>3</td>
</tr>
<tr>
<td>MATH 7</td>
<td>3</td>
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</table>

Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 12/12H</td>
<td>4</td>
</tr>
<tr>
<td>MATH 23</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: No other math class counts toward an associate degree in mathematics.

Recommended from Related Disciplines

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural, Physical, Computer Science and/or Engineering</td>
<td>3-12</td>
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<tr>
<td>PHYS 4ABC</td>
<td>15</td>
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</tbody>
</table>

Associate in Arts Degree in Mathematics

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>30</td>
</tr>
<tr>
<td>Mathematics Core Courses</td>
<td>18</td>
</tr>
<tr>
<td>Physics 4ABC</td>
<td>15</td>
</tr>
</tbody>
</table>

Total for A.A. Degree in Mathematics | 63 |
Associate in Science Degree in Mathematics

General Education ............................................. 21
Mathematics Core Courses ................................. 18
Physics 4ABC Physics for Scientists and Engineers ....... 15
Mathematics, Natural, Physical, Computer Science
and/or Engineering Electives ............................... 6
Total for A.S. Degree in Mathematics ........................ 60

GENERAL INFORMATION ABOUT MEETING PREREQUISITES

A minimum grade of "C" is required in the prerequisite course. It is strongly recommended that prerequisite course work not be more than two years old. Verification of prerequisites will be required. Prerequisites for courses in this department are computer enforced. Students should be sure their records have been entered into the Cabrillo computer system before attempting to enroll. Course prerequisites may be met in the following ways:

- Successful completion of the prerequisite course as listed in the Catalog or Schedule of Classes
- Successful completion of appropriate coursework at another college or university
- An appropriate placement score
- For certain courses, equivalent professional experience

If you believe you have completed the listed prerequisites or corequisites for a course as listed in the Catalog or Schedule of Classes, make an appointment to see a counselor.

Mathematics Courses

MATH 2
Precalculus Algebra
4 units; 4 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents functions and their properties including polynomial, rational, exponential and logarithmic functions and their graphs, inverses and applications. May not be taken pass/no pass.

Transfer Credit: Transfers to CSU, UC pending review.

MATH 3
Precalculus Trigonometry
3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: MATH 153 or high school geometry or equivalent skills; Eligibility for ENGL 100 and READ 100.

Presents right and oblique triangle trigonometry with applications including vectors, graphing, identities, trigonometric equations, and trigonometric and inverse trigonometric functions. May not be taken pass/no pass.

Transfer Credit: Transfers to CSU.

MATH 4
Pre-Calculus Algebra and Trigonometry
5 units; 5 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: MATH 153 or high school geometry or equivalent skills; Eligibility for ENGL 100 and READ 100.

A study of functions and their properties including trigonometric, logarithmic, exponential, polynomial, rational functions and their graphs, inverses and applications. The relationship between the equation form of a function and its graph will be emphasized. May not be taken pass/no pass.

Transfer Credit: Transfers to CSU, UC.

MATH 5A
Analytic Geometry and Calculus I
4 units; 5 hours Lecture
Prerequisite: MATH 2 and MATH 3 or MATH 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Designed for majors in mathematics, engineering and physical sciences. Plane analytic geometry of lines and graphing, differential calculus of algebraic and transcendental functions of one variable with applications. May not be taken pass/no pass.

Transfer Credit: Transfers to CSU; UC, with limits: MATH 5A & 18 combined-maximum credit-1 course.

MATH 5B
Analytic Geometry and Calculus II
4 units; 5 hours Lecture
Prerequisite: MATH 5A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Designed for majors in mathematics, engineering, and physical sciences. Integral calculus of algebraic and transcendental functions of one variable with applications, techniques of integration, sequences and series. May not be taken pass/no pass.

Transfer Credit: Transfers to CSU, UC.

MATH 5C
Analytic Geometry and Calculus III
4 units; 5 hours Lecture
Prerequisite: MATH 5B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Designed for majors in mathematics, engineering, and physical sciences. Vectors and vector functions, multivariable calculus of algebraic and transcendental functions, line and surface integrals, vector field theory. May not be taken pass/no pass.

Transfer Credit: Transfers to CSU, UC.
MATH 6
Introduction to Linear Algebra
3 units; 3 hours Lecture
Prerequisite: MATH 5C or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces linear algebra, including vectors in n-dimensional R, matrices, row reductions, inverse matrices, determinants, vector spaces, basis, change of basis, linear independence, transformations, eigenvalues, eigenvectors, Gram-Schmidt process. Offered spring only. May not be taken pass/no pass.
Transfer Credit: Transfers to CSU, UC.

MATH 7
Introduction to Differential Equations
3 units; 3 hours Lecture
Prerequisite: MATH 5C or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An introductory course in Differential Equations: first order, second order, homogeneous, nonhomogeneous, variation of constants, applications. Simple linear systems with constant coefficients, Laplace transforms, Euler’s method. May not be taken pass/no pass.
Transfer Credit: Transfers to CSU, UC.

MATH 10
Survey of College Mathematics
3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A survey course in mathematics that uses intermediate algebra skills to examine the concepts and applications of various topics. Core topics are: set theory, logic, mathematical modeling, probability and statistics. Additional topics may include: mathematical systems, the mathematics of finance, ideas from geometry, or an introduction to calculus concepts.
Transfer Credit: Transfers to CSU, UC.

MATH 12
Elementary Statistics
4 units; 5 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents histograms, measures of central tendency and dispersion, probability, binomial and normal distributions, estimation and hypothesis testing, regression and correlation. Recommended for social science majors, environmental studies majors, and some liberal arts majors. Requires extensive use of a graphing calculator or desktop computer to complete several required lab assignments. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC with limits: MATH 12 combined with BUS 9-maximum credit-1 course.

MATH 12H
Honors Elementary Statistics
4 units; 5 hours Lecture
Prerequisite: MATH 152 or equivalent skills; Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Presents histograms, measures of central tendency and dispersion, probability, binomial and normal distributions, estimation and hypothesis testing, regression and correlation. Recommended for social science majors, environmental studies majors, and some liberal arts majors. Requires extensive use of a graphing calculator or desktop computer to complete several required lab assignments.
Transfer Credit: Transfers to CSU, UC pending review.

MATH 13
Finite Mathematics
3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Set theory, linear programming, matrices, mathematics of finance, probability, with applications to business and the social sciences.
Transfer Credit: Transfers to CSU, UC.

MATH 15
Number Systems
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 153; MATH 152 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an understanding of the nature of arithmetic and the structure of mathematical systems as used by liberal arts students and prospective elementary teachers. Topics covered may include a study of sets, relations, systems of numeration, and the real number system. Offered spring only.
Transfer Credit: Transfers to CSU, UC. Does not meet UC math admissions requirement.

MATH 18
Business Calculus
3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an intuitive introduction to differential and integral calculus for functions of one variable and an introduction to functions of several variables including partial differentiation and maxima/minima problems.
Transfer Credit: Transfers to CSU; UC, with limits: MATH 5A & 18 combined-maximum credit-1 course.
MATH 23
Discrete Mathematics
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 5A or equivalent.
Recommended Preparation: CS 19, CS 20J or equivalent; Eligibility for ENGR 100 and READ 100.

Presents discrete mathematical systems including methods of proof that shape the foundations of computer science. Includes set and number theory, Boolean Algebra, deductive and inductive proof, logic, equivalence, order, and recurrence relations, combinatorics, graph and network models, circuits and circuit minimization techniques, automata, and grammars. Computer science majors should enroll in CS 23 (identical to MATH 23). Offered spring only.
Transfer Credit: Transfers to CSU, UC.

MATH 152
Intermediate Algebra
4 units; 5 hours Lecture
Prerequisite: MATH 154 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Further development of algebra skills acquired in elementary algebra, which include the system of real numbers, polynomials, algebraic equations (linear, systems of linear, quadratic, and applications). The characteristics and properties of linear and quadratic functions are studied in detail, with an introduction to negative exponents, systems of linear equations in three variables, complex rational expressions, complex numbers, inverse, exponential and logarithmic functions, conic sections, and non-linear systems. Problem-solving skills are developed to encourage students to use their basic knowledge of algebra to explore problems. May be offered in a Distance-Learning Format. May not be taken pass/no pass.

MATH 152A
Intermediate Algebra–First Half
2 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 154 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents the first half of Intermediate Algebra and is designed for a wide variety of students, including those who have been unsuccessful in MATH 152, are math anxious, or desire a slower paced, year-long version of MATH 152. When followed by MATH 152B, satisfies Cabrillo’s math graduation requirement for Associate of Arts and Associate of Science Degree. Covers linear equations, functions and graphs, systems of linear equations and inequalities, compound inequalities, factoring, polynomial equations, rational expressions and rational equations. Offered fall only. May not be taken pass/no pass.

MATH 152B
Intermediate Algebra–Second Half
2 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 152A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents the second half of Intermediate Algebra and, when taken after MATH 152A, satisfies Cabrillo’s math graduation requirement for Associate of Arts and Associate of Science Degree. Covers radical, exponential, and logarithmic expressions and equations, composition and inverse of functions, graphs, and applications. Offered spring only. May not be taken pass/no pass.

MATH 153
Plane Geometry
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent skills.
Recommended Preparation: Eligibility for ENGR 100 and READ 100.

Introduces the vocabulary and principles of Euclidean geometry, developing critical thinking skills using inductive and deductive reasoning while exploring the concepts of congruence and similarity, the properties of angles, lines, polygons, circles, and solids. May be offered in a Distance-Learning Format.

MATH 154
Elementary Algebra
4 units; 5 hours Lecture
Prerequisite: MATH 254 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a systematic development of numbers, polynomials and polynomial fractions. Applications to the solution of linear equations, graphing of and solutions for systems of linear equations, quadratic equations and an introduction to exponents and radicals. Contains topics typical of first-year high school algebra, but taught at a college level. May not be taken pass/no pass. May be offered in a Distance-Learning Format.

MATH 154A
Elementary Algebra–First Half
2 units; 5 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 254 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Designed for a wide variety of students, including those who have been unsuccessful in MATH 154, are math anxious, have learning disabilities in mathematics, or desire a slower paced, year-long version of MATH 154. Course is supplemented with individual tutoring within the class structure to provide extra individual assistance and has an excellent track record of student success. This course is the first half of Elementary Algebra. The content covered contains a systematic development of numbers, solving first degree equations and inequalities, graphing two variable linear equations, and two variable systems of equations. Offered fall only. May not be taken pass/no pass.

MATH 154B
Elementary Algebra–Second Half
2 units; 5 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 154A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

The second half of Elementary Algebra and intended only for students who have successfully completed MATH 154A. Provides a systematic development of polynomial fractions, applications to the solution of quadratic equations, and an introduction to exponents and radicals. Offered spring only. May not be taken pass/no pass.
MATH 158BF
Algebra Review–Basic Factoring
0.5 unit; 1.5 hours Laboratory
Corequisite: MATH 154 or higher level math course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This independent instruction module covers prerequisite skills for factoring followed by extensive drill on the five factoring techniques typically included in an elementary algebra course. This course may be taken pass/no pass only.

MATH 158GC
Introduction to the Graphing Calculator
0.5 unit; 0.5 hour Lecture
Recommended Preparation: MATH 152; Eligibility for ENGL 100 and READ 100.
An introduction to the use of handheld graphing calculators in mathematics courses. Emphasis will be placed on the Texas Instruments TI-83 (and TI-83 Plus), TI-85, TI-86, and TI-89. Strongly recommended for students enrolled in a mathematics course where the use of a graphing calculator is required. May be taken for pass/no pass only.

MATH 158PF
Algebra Review-Polynomial Fractions
0.5 unit; 1.5 hours Laboratory
Corequisite: MATH 154 or higher level math course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This independent instruction module covers addition and subtraction of polynomial fractions at the level of elementary algebra. A brief review of the least common multiple of two or more polynomials is included, and the ability to express an answer in lowest terms is emphasized. May be taken for pass/no pass only.

MATH 158SI
Using the Metric System
0.5 unit; 1.5 hours Laboratory
Corequisite: MATH 154 or higher level math course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This independent instruction module introduces the units and uses of the metric system and its applications. May be taken for pass/no pass only.

MATH 158T
Preparation for Tutoring Mathematics
1 unit; 3 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: MATH 4 with a minimum grade of B or better in recently completed MATH classes; Eligibility for ENGL 100 and READ 100.
Provides tutoring techniques and hands-on training for math tutors and those interested in tutoring mathematics. Strategies for maximizing active learning are emphasized. Specifically designed for students enrolled in or recently completing MATH 12, 12H, 13, 15, 5A, 5B, or 5C.

MATH 195A-Z
Survey Topics in the Scientific Method
2 units; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces to the prospective math or science major some of the tools and skills that assist scientists in their work. Covers the general framework and philosophy of the scientific method, which forms the basis of the adoption and rejection of any theory in science.

MATH 254
Essential Mathematics
3 units; 6 hours Laboratory
Presents topics using computer software, assisted by the instructor, and covers arithmetic procedures involving whole numbers, fractions, decimals, percent, integrated with signed numbers, equations, statistics, proportions, graphing, and geometry. May be offered in a Distance-Learning Format.

MATH 254A
Essential Mathematics–First Half
2 units; 3 hours Lecture, 2 hours Laboratory
Covers arithmetic procedures involving whole numbers, fractions, and decimals integrated with equations and proportions.

MATH 254B
Essential Mathematics–Second Half
2 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: MATH 254A.
Continuation of arithmetic studies of MATH 254A with decimals and percent integrated with signed numbers, equations, proportion, statistics and graphing. This course is the second half of MATH 254.

MATH 502
Supervised Tutoring
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Supervised individual and group drop-in tutoring assistance in basic skills, high school equivalent, and transfer mathematics courses, including mathematics applications found in science courses. Repeatable with each enrollment in a Cabrillo mathematics course.
MEDICAL ASSISTANT
Health, Wellness, Physical Education and Athletics
Division
Kathleen Welch, Division Chair
Division Office, Room 1102
Charlotte Jensen, Program Chair, (831) 479-6438
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6248 for more information
http://www.cabrillo.edu/programs

Medical Assistant Occupational Program
The Cabrillo College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).
Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
727-210-2350
The Medical Assistant represents an extension of the medical profession; thus the job demands the same high caliber of ethics, attitude, confidentiality and performance that the public has come to expect of the medical profession. Opportunities are many and varied, depending upon such factors as personal ability, experience and education. Medical Assistants may become managers of clinics or group practices as well as assist in the physician’s office, clinic or hospital.

Background Checks
Background checks may be required according to clinic and hospital policy for Medical Assistant Department students doing Cooperative Work Experience (CWEE).

Students who keyboard 30+ wpm accurately are exempt from CABT 110AB and may substitute a course from the approved electives list.

Students who keyboard 40+ wpm accurately are exempt from CABT 110ABC and may substitute a course from the approved electives list.

<table>
<thead>
<tr>
<th>MEDICAL ASSISTANT OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Courses</strong></td>
</tr>
<tr>
<td>CABT 110C</td>
</tr>
<tr>
<td>CABT 131</td>
</tr>
<tr>
<td>MA 70</td>
</tr>
<tr>
<td>MA 130A, 130AL, 130B</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>MA 160</td>
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<tr>
<td>MA 165</td>
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<td>MA 170B</td>
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<td>MA 176</td>
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<td>MA 176L</td>
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<td>MA 181</td>
</tr>
<tr>
<td>MA 182</td>
</tr>
<tr>
<td>MA 183A</td>
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<tr>
<td>OR</td>
</tr>
<tr>
<td>MA 184</td>
</tr>
<tr>
<td>MA 199C</td>
</tr>
</tbody>
</table>

**Approved Electives**

| PSYCH 35ABC | Death and Dying | 1-3 |
| BUS 155 | Business Math | 3 |
| CABT 111 | Using Speech Recognition Software | 1 |
| CABT 156 | Business Grammar | 3 |
| CABT 102 | Using the 10-Key Calculator | 1 |
| MA 150 | Pharmacology for Medical Assistants | 1 |
| MA 178 | Medical Spanish | 3 |
| MA 179A | Diagnostic and Procedural Coding | 3 |
| MA 179B | Intermediate Coding | 3 |
| MA 183B | Advanced EKG | 1 |
| MA 186 | CPT Coding | 2 |
| COMM 2 | Group Discussion | 3 |

**Approved Electives for Certificate of Achievement: Medical Assistant Option: (4½-7½ units)**

| CABT 111 | Using Speech Recognition Software | 1 |
| MA 183C | EKG Complete Skills | 2 |
| MA 188 | Human Pathophysiology | 3 |
| MA 189 | Electronic Health Records | 1.5 |

**Associate in Science Degree in Medical Assistant**

| General Education | 21 |
| Medical Assistant Option Core Courses | 32½-35½ |
| Approved Electives | 4½-7½ |
| **Total for A.S. Degree in Medical Assistant** | 60 |
Certificate of Achievement: Medical Assistant Option

Medical Assistant Option Core Courses: 32½-37
ENGL 100/1A/1AH/1AMC/1AMCH or CABT 157: 3
Approved Electives: 0-3
Total for Certificate of Achievement: 35-37

MEDICAL ADMINISTRATIVE ASSISTANT OPTION

The Medical Administrative Assistant works in a healthcare facility doing front office and administrative tasks. Positions require excellent communication and detail skills. Medical Administrative Assistants find employment opportunities with physicians, clinics, and hospitals.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 110A/B*</td>
<td>1</td>
</tr>
<tr>
<td>Using Speech Recognition Software</td>
<td>1</td>
</tr>
<tr>
<td>OR CABT 110C</td>
<td>½</td>
</tr>
<tr>
<td>CABT 111</td>
<td>3</td>
</tr>
<tr>
<td>CABT 131</td>
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</tr>
<tr>
<td>MA 160</td>
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<tr>
<td>MA 70</td>
<td>3</td>
</tr>
<tr>
<td>MA 170B</td>
<td>3</td>
</tr>
<tr>
<td>MA 172</td>
<td>4</td>
</tr>
<tr>
<td>MA 173A</td>
<td>1½</td>
</tr>
<tr>
<td>MA 178</td>
<td>3</td>
</tr>
<tr>
<td>MA 181</td>
<td>3</td>
</tr>
<tr>
<td>MA 182</td>
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<tr>
<td>MA 184</td>
<td>2</td>
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<tr>
<td>MA 189</td>
<td>1.5</td>
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<tr>
<td>MA 199C</td>
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Approved Electives

<table>
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<td>BUS 155</td>
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<td>CABT 102</td>
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<tr>
<td>CABT 103A</td>
<td>1</td>
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<tr>
<td>MA 70</td>
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<td>MA 173A</td>
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<tr>
<td>MA 173B</td>
<td>1½</td>
</tr>
<tr>
<td>MA 179A</td>
<td>3</td>
</tr>
<tr>
<td>MA 179B</td>
<td>3</td>
</tr>
<tr>
<td>MA 181</td>
<td>3</td>
</tr>
<tr>
<td>MA 182</td>
<td>½</td>
</tr>
<tr>
<td>MA 184</td>
<td>2</td>
</tr>
<tr>
<td>MA 186</td>
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</table>

Total for Certificate of Achievement: 38½-40

MEDICAL INSURANCE SPECIALIST OPTION

The Medical Insurance Specialist does billing and/or procedural and diagnostic coding. Medical billing and coding employment opportunities are increasing. Training, experience and continuing education increase advancement in medical billing and coding. Medical Insurance Specialists can work for physicians, clinics, hospitals, and for benefit departments in industry.

Certificate of Achievement: Medical Insurance Specialist

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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<td>CABT 103A</td>
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<td>3</td>
</tr>
<tr>
<td>MA 173A</td>
<td>1½</td>
</tr>
<tr>
<td>MA 173B</td>
<td>1½</td>
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<tr>
<td>MA 179A</td>
<td>3</td>
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<tr>
<td>MA 179B</td>
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<tr>
<td>MA 181</td>
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</tr>
<tr>
<td>MA 182</td>
<td>½</td>
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<td>MA 184</td>
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<td>MA 186</td>
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Approved Electives

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<td>PSYCH 35AB</td>
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<td>CABT 157</td>
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<td>MA 150</td>
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<td>MA 189</td>
<td>1½</td>
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<tr>
<td>MA 199C</td>
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</table>

Total for A.S. Degree in Medical Insurance Specialist: 60

Certificate of Achievement: Medical Insurance Specialist

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGL 100/1A/1AH/1AMC/1AMCH or CABT 157</td>
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</tbody>
</table>

Approved Electives (if needed): 1

Total for Certificate of Achievement: 27½

*Students who keyboard 40+ wpm accurately are exempt from CABT 110ABC and may substitute a course from the approved electives list. Students who keyboard 30+ wpm accurately are exempt from CABT 110AB and may substitute a course from the approved electives list.
### SKILLS CERTIFICATE: MEDICAL RECEPTIONIST

The skill certificate prepares students for employment in positions in healthcare and industry that involve performing as a medical receptionist.

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>*CABT 110AB</td>
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<td>OR</td>
<td>*CABT 110C Computer Keyboarding Numbers/Symbols</td>
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<tr>
<td>AND</td>
<td>CABT 111 Using Speech Recognition Software</td>
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</tr>
<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>MA 172</td>
<td>Medical Office Procedures</td>
<td>4</td>
</tr>
<tr>
<td>MA 181</td>
<td>Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MA 182</td>
<td>Introduction to Health Careers</td>
<td>½</td>
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<tr>
<td>MA 184</td>
<td>Healthcare Communications and Etiquette</td>
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<tr>
<td>MA 189</td>
<td>Electronic Health Records</td>
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</table>

Total for Skills Certificate: 16½-17

*Students who keyboard 40+ wpm accurately are exempt from CABT 110ABC and may substitute from the approved electives list. Students who keyboard 30+ wpm accurately are exempt from CABT 110AB and may substitute from the approved electives list.*

### SKILLS CERTIFICATE: EKG TECHNICIAN

The EKG skills certificate prepares students for employment in positions in healthcare and industry that involve performing electrocardiograms in inpatient and outpatient settings.

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CABT 103A</td>
<td>Data Entry on Computer</td>
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<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>MA 170B</td>
<td>Medical Terminology-Structure and Function of the Body</td>
<td>3</td>
</tr>
<tr>
<td>MA 173A</td>
<td>Medical Law and Ethics</td>
<td>1½</td>
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<tr>
<td>MA 176</td>
<td>Intro to Medical Assisting Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MA 176L</td>
<td>Medical Assisting Lab</td>
<td>1</td>
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<tr>
<td>MA 182</td>
<td>Introduction to Health Careers</td>
<td>½</td>
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<tr>
<td>MA 183A</td>
<td>EKG Skills</td>
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<tr>
<td>AND</td>
<td>MA 183B Advanced EKG Skills</td>
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<tr>
<td>OR</td>
<td>MA 183C EKG Complete Skills</td>
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</tbody>
</table>

Total for Skills Certificate: 14½-15

**SKILLS CERTIFICATE: PHLEBOTOMY TECHNICIAN**

The skills certificate prepares students for employment in positions in healthcare and industry that involve blood drawing in inpatient and outpatient settings.

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MA 130A*, 130AL*, 130B* Phlebotomy Series</td>
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<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
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<tr>
<td>MA 173A</td>
<td>Medical Law and Ethics</td>
<td>1½</td>
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<tr>
<td>MA 176</td>
<td>Intro to Medical Assisting Procedures</td>
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<tr>
<td>MA 176L</td>
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<td>MA 182</td>
<td>Introduction to Health Careers</td>
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<tr>
<td>MA 199C</td>
<td>Career Work Experience Education</td>
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Total for Skills Certificate: 15

*This course is required for California State Licensing.*

### SKILLS CERTIFICATE: ELECTRONIC HEALTH RECORDS

<table>
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<tr>
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<th>Course Title</th>
<th>Units</th>
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</thead>
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<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>CABT 102</td>
<td>10-Key Calculator</td>
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<tr>
<td><em>CABT 110A</em></td>
<td>Computer Keyboarding-Alphabet Keys</td>
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<tr>
<td>and</td>
<td>CABT 110B Computer Keyboarding-Numbers/Symbols</td>
<td>½</td>
</tr>
<tr>
<td>OR</td>
<td>CABT 111 Using Speech Recognition Software</td>
<td>1</td>
</tr>
<tr>
<td>CABT 110C</td>
<td>Computer Keyboarding-Speed Development</td>
<td>½</td>
</tr>
<tr>
<td>MA 173A</td>
<td>Medical Law &amp; Ethics</td>
<td>1½</td>
</tr>
<tr>
<td>MA 189</td>
<td>Electronic Health Records</td>
<td>1½</td>
</tr>
</tbody>
</table>

Total Units: 8½

### Medical Assistant Courses

**MA 70 Medical Terminology**

3 units; 3 hours Lecture

Repeatability: May be taken 2 times.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches fundamentals of medical word building with emphasis on prefixes, word roots, suffixes, combining forms, abbreviations, and lay terms. Provides a background for any paramedical course.

Transfer Credit: Transfers to CSU.
MA 130A
Phlebotomy
1.5 units; 1.5 hours Lecture
Prerequisite: MA 70.
Corequisite: MA 130AL or current California phlebotomy certification.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
California Certified basic phlebotomy course teaching proper collection of blood specimens, choice of proper equipment, venipuncture techniques, patient care, safety, tests, and quality assurance. This course is designed for all beginning students and for phlebotomists with less than 1,040 hours of experience. Students who wish to become California state certified phlebotomists must complete MA130A, MA130B and MA130AL, and a 120-hour externship. Phlebotomists with less than 1,040 hours must take MA130A and B to become certified. Phlebotomists with more than 1,040 hours must take MA130B. All students must pass a national phlebotomy certification examination to become certified. May be offered in a Distance-Learning Format.

MA 130AL
Phlebotomy Lab
1 unit; 4 hours Laboratory
Corequisite: MA 130A or current California phlebotomy certification.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides the skills portion of the MA 130 series for beginning phlebotomy students working towards state certification. Students will perform approximately 35 venipunctures and 2 skin punctures, learning clinical and hospital procedures. A two-unit externship (MA 199C) is also required for those planning to become state certified phlebotomists. Students MUST bring a copy of verification of Hepatitis B vaccinations 1 and 2 to the first class. Student skills must demonstrate compliance to safety instructions or students may be dropped from course. New students who wish to become California state certified phlebotomists must complete MA 130A, MA 130B and MA 130AL, and a 120-hour externship. Phlebotomists with less than 1,040 hours must take MA 130A and B to become certified. Phlebotomists with more than 1,040 hours must take MA 130B. All students must pass a national phlebotomy examination to become certified.

MA 130B
Phlebotomy-Advanced
1.5 units; 1.5 hours Lecture
Prerequisite: MA 130A or current California phlebotomy certification; MA 130AL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches phlebotomy equipment, techniques, patient care, safety, tests, advanced infection control and bio-hazards, quality assurance and communications. Advanced lecture required for state certification. Course designed for all students including phlebotomists with more than 1,040 hours of phlebotomy experience. All students must pass a national phlebotomy examination to become certified. May be offered in a Distance-Learning Format.

MA 140
Eye Disease/Pharmacology
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100.
A study of major diseases, symptoms, treatments of the eye and related structures and common ophthalmic drugs, uses, effects, dangers, and precautions.

MA 141
Introduction to Clinical Eye Skills
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100; Eligibility for MATH 154.
Basic ophthalmic test principles and techniques including the ocular screening exam, visual acuity measurement, slit lamp examination, tear function and color vision tests. Tonometry, refractometry, and retinoscopy will be reviewed and demonstrated.

MA 150
Pharmacology for Medical Assistants
2 units; 2 hours Lecture
Prerequisite: MA 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches Medical Assistant and allied health students drug therapy including the mechanisms of action, therapeutic effects, clinical indications, reactions, and interventions. May be offered in a Distance-Learning Format.

MA 160
Basic ICD-9-CM and CPT Coding
1 unit; 1 hour Lecture
Prerequisite: MA 70 or MA 170B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches basic principles and conventions of the ICD-9-CM and CPT coding classification systems to students not majoring in billing or coding. Emphasis is on the format and use of coding in the health care field, and how to access and assign ICD-9-CM and CPT codes. May be offered in a Distance-Learning Format.

MA 165
Injection Short Course
1 unit; 1 hour Lecture
Repeatable: May be taken 2 times.
Prerequisite: MA 70, MA 176.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches allied health students and current healthcare employees the correct procedures for administering intramuscular, intradermal and subcutaneous injections. Liability insurance, hepatitis series and kit fee required.
MA 170B
Medical Terminology—Structure & Function of the Body
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches terms of anatomy, physiology, diseases, diagnostic, operative, and x-ray procedures. Course helpful to all paramedical students. May be offered in a Distance-Learning Format.

MA 171A
Medical Transcription A
3 units; 1 hour Lecture, 6 hours Laboratory
Repeatability: May be taken a total of 2 times.
Prerequisite: CABT 110A or equivalent skill; MA 70 or concurrent enrollment.
Recommended Preparation: CABT 131AB. Those without typing skills are encouraged to take CABT 110A. Eligibility for ENGL 100 and READ 100.

Instruction and practice in typing medical case histories, medical articles, and medical correspondence.

MA 172
Medical Office Procedures
4 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers medical office procedures including medical reception, scheduling, written and oral communications, medical forms, filing, medical office management, and medical office bookkeeping. May be offered in a Distance-Learning Format.

MA 173A
Medical Law & Ethics
1.5 units; 1.5 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches legal and ethical medical issues including discussion of real court cases, medical assistant regulations and legal standards for health care workers. May be offered in a Distance-Learning Format.

MA 173B
Medical Office Management
1.5 units; 1.5 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Study and practice of medical office management including financial management, accounts receivable ratios, credit and collections, general office administration, and human resource management.

MA 175
CMA Certification Review
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Reviews Medical Assistant competencies in preparation for American Association of Medical Assistant’s certification examination.

MA 176
Introduction to Medical Assisting Procedures
3 units; 3 hours Lecture
Prerequisite: MA 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches basic clinical skills utilized in outpatient medical settings. Included are vital signs, administration of medications (oral and injectable), and infection control. Theory, including relevant anatomy and physiology, microbiology, and pharmacology, constitutes a major portion of the course work.

MA 176L
Medical Assisting Lab
1 unit; 3 hours Laboratory
Repeatability: May be taken 2 times.
Corequisite: MA 176.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Practice in clinical procedures including vital signs, handwashing techniques, injections, aseptic procedures, and sterilization procedures.

MA 177
Beginning Medical Spanish
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches conversational Spanish with emphasis on medical terminology.

MA 178A
Diagnostic & Procedural Coding for Medical Facilities
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches working knowledge of the principles, terms, and conventions of ICD-9-CM coding assignments as applicable to medical facilities. May be offered in a Distance-Learning Format.

MA 178B
Intermediate ICD-9-CM/CPT Coding
3 units; 1 hour Lecture, 6 hours Laboratory
Prerequisite: MA 178A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers principles, terms, and conventions of ICD-9-CM & CPT coding assignments as applicable to medical facilities using computer software. May be offered in a Distance-Learning Format.

MA 179A
Medical Insurance
3 units; 3 hours Lecture
Prerequisite: MA 160, MA 179A, MA 186.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Reviews Medical Assistant competencies in preparation for American Association of Medical Assistant’s certification examination.

MA 179B
Intermediate ICD-9-CM/CPT Coding
3 units; 1 hour Lecture, 6 hours Laboratory
Prerequisite: MA 179A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers principles, terms, and conventions of ICD-9-CM & CPT coding assignments as applicable to medical facilities using computer software. May be offered in a Distance-Learning Format.

MA 181
Medical Insurance
3 units; 3 hours Lecture
Prerequisite: MA 179A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Reviews Medical Assistant competencies in preparation for American Association of Medical Assistant’s certification examination.

MA 182
Legal and Ethical Issues in Health Care
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches ethical and legal principles as they affect health care workers and the legal environment in which they practice.

MA 183
Financial Management of Health Care Facilities
3 units; 3 hours Lecture
Prerequisite: MA 160, MA 178A, MA 186.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Reviews Medical Assistant competencies in preparation for American Association of Medical Assistant’s certification examination.

MA 184
Health Care Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Reviews Medical Assistant competencies in preparation for American Association of Medical Assistant’s certification examination.

MA 185
Health Care Services Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Reviews Medical Assistant competencies in preparation for American Association of Medical Assistant’s certification examination.

MA 186
Medical Office Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Reviews Medical Assistant competencies in preparation for American Association of Medical Assistant’s certification examination.
MA 182
**Introduction to Health Careers**
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides information on health care careers and requirements for health care professionals and describes career opportunities, health care professionalism, confidentiality and work place skills. May be offered in a Distance-Learning Format.

MA 183A
**EKG (Electrocardiography) Skills**
0.5 unit; 0.5 hour Lecture, 0.3 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: MA 70, MA 176.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches proper use of EKG equipment and determination of proper testing procedures. Equipment, techniques, patient care, safety, tests, quality assurance are covered. Designed for students in Medical Assistant and other health care programs.

MA 183B
**Advanced EKG (Electrocardiography) Skills**
1 unit; 1 hour Lecture
Prerequisite: MA 183A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches advanced EKG skills to prepare students to recognize artifacts and cardiac irregularities, and review holter and stress testing equipment.

MA 183C
**EKG Complete Skills**
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: MA 70, MA 176.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches electrocardiography skills, holter and stress monitoring, and recognition of cardiac irregularities.

MA 184
**Health Care Communication & Etiquette**
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Prepares skills of professional conduct and interaction for health care settings and job-related social settings. Designed for students in the Medical Assistant and other health care programs. May be offered in a Distance-Learning Format.

MA 185B
**Phlebotomy**
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Prerequisite: MA 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches phlebotomy for allied health students. Students will complete ten successful venipunctures. Course does not satisfy California State Phlebotomy licensing requirements.

MA 186
**CPT (Current Procedural Terminology) Coding**
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches procedural coding for office and out-patient procedures. May be offered in a Distance-Learning Format.

MA 187
**Health Information Management**
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches fundamental theories and practice of health information management. Includes content, access, retention, HIPAA regulations, and security of health information. May be offered in a Distance-Learning Format.

MA 188
**Human Pathophysiology**
3 units; 3 hours Lecture
Requisites Recommended Preparation: BIO 13.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches general principles of disease process with emphasis on etiologies and physiological changes in the body caused by disease processes. Reviews diagnostic procedures, preventive measures and current treatment. May be offered in a Distance-Learning Format.

MA 189
**Electronic Health Records**
1.5 units; 1 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches students to use electronic health records documenting patient encounter from scheduling to recording medical information.

MA 190D
**Allied Health–Medical Spanish**
1 unit; 1 hour Lecture
Repeatability: May be taken a total of 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Course in conversational Spanish with emphasis on medical terminology.
MA 190E
Medical Office Bookkeeping
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken a total of 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Short bookkeeping course for limited number of students completing the Medical Assistant Program who finished MA 172 prior to its revision to 3 units (effective fall 2002) and who have not completed ACCT 151M prior to its deactivation (spring 2002). Contact Charlotte Jensen 479-6438 for further clarification.

METEOROLOGY

Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Dave Balogh, for Additional Information, (831) 479-6346
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Meteorology Majors

Meteorology is that branch of natural science which deals with the atmosphere and its interactions with the rest of the planet Earth. It is both an applied and theoretical science. Students who wish to major in the field should have a good understanding of mathematics, chemistry and physics.

Career opportunities include researcher, teacher, government service, forecasting, and television and radio weathercaster. Some career positions do not require the B.S. or graduate degrees.

Cabrillo does not offer an A.A. or A.S. Degree in Meteorology. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>MATH 5ABC</td>
<td>Analytical Geometry &amp; Calculus</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>PHYS 4AB</td>
<td>Physics for Scientists &amp; Engineers</td>
</tr>
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</table>

*Recommended

"MATH 7" Introduction to Differential Equations . . . . 3
"Meteorology requires a course in differential equations.
The transfer student may take a course in ordinary differential equations at the community college and request content credit upon transfer.
Meteorology electives not required for transfer

METEO 1 Elementary Meteorology . . . . . . . . . . . . . . . . . . . . . . . 3
METEO 1L Meteorology Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1

Meteorology Courses

METEO 1
Elementary Meteorology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Explores the composition, structure and motion of the atmosphere including: weather systems, clouds and precipitation, radiation, upper atmospheric phenomena, microclimates, meteorological instruments, and observations. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

METEO 1L
Meteorology Laboratory
1 unit; 3 hours Laboratory
Prerequisite: METEO 1 or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Emphasizes the nature and causes of weather using instruments and exercises.
Transfer Credit: Transfers to CSU, UC.

MUSIC

Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room VAPA1007
Michele Rivard, Program Chair, (831) 479-6315
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Transfer Credit in Music

All Music Theory and Musicianship courses transfer to both the University of California and the California State University, where the equivalent of two years of Music Theory and Musicianship are required at the lower division level. Music majors are encouraged to complete as many of these courses as possible prior to transfer in order to prepare for upper division work. Upon transfer to many four-year universities or music schools, students must take placement exams in
Information for Music Majors

The music curriculum provides a program for the student who wishes to (1) pursue an advanced degree in music, (2) become a professional musician, (3) prepare for a career in public school teaching, (4) broaden a general knowledge of music, or (5) develop performance skills. Students will be given the theory, keyboard, and sight-reading skills necessary to transfer to a four-year college music curriculum, where they will be expected to pass proficiency exams in each of these areas. Participation in at least one principal performance group is highly recommended for each semester. Some transfer schools may require a foreign language (usually French, Italian, or German). See a counselor for transfer information for a B.A. Degree.

Opportunities for other careers in commercial music are found in music publishing, composition, nightclub entertainment, dance bands, backup singing groups, lead singing, recording studios, music sales, music retailing, librarian work, and management. The requisite background for these careers is found in the basic music major curricula plus optional specialized training courses.

MODEL PROGRAM FOR MUSIC

The following model program fulfills requirements for an A.A. Degree in Music at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses
MUS 6   Music Fundamentals ............................. 3
MUS 5   Beginning Jazz/Pop Theory ...................... 3
MUS 51A  Beginning Piano I ............................ 1

General Option
MUS 1,2,3 or 4 Comprehensive Theory I, II, III, IV .............. 3
MUS 1M,2M, 3M, or 4M Musicianship I, II, III, IV .............. 3

Jazz Option
MUS 9A Advanced Jazz Theory/Beginning Jazz Arranging ............. 3
MUS 24ABC Jazz Improvisation ................................ 3

Performance Electives
Vocal/Choral
MUS 34 Cabrillo Cantata Chorus ................................ 1
MUS 35 College Choir ........................................ 1
MUS 36 Chorale ................................................ 1
MUS 37W Watsonville Center Community Chorus ............. 1
MUS 39 Westside Community Folk/Gospel Choir ............. 1
MUS 61 Cabrillo Symphonic Chorus .......................... 1
MUS 62 Cabrillo Touring Chorus .............................. 1
MUS 63 Chamber Choir ........................................ 1
MUS 64 Cantiamo Cabrillo .................................... 1
MUS 65 Cabrillo Women’s Choir ................................ 1
MUS 66 Opera Workshop ...................................... 1
MUS 67 Opera Theater Production ............................ 1
MUS 74 Introduction to Musical Theatre ....................... 3
MUS 75 Summer Musical ..................................... 1-3

Jazz Option on Vocal/Choral:
MUS 38 Jazz Singers ........................................ 1

Instrumental
MUS 18B Intermediate Concert Band .......................... 1
MUS 18J Intermediate Jazz Band ................................ 1
MUS 20 Intermediate Orchestra Instruments .................. 1
MUS 40 Chamber Music Ensemble .............................. 1
MUS 47 Guitar Ensemble ........................................ 1
MUS 48 Concert Band .......................................... 1
MUS 49 College Symphonic Winds ............................ 1
MUS 53 Baroque Chamber Ensemble .......................... 1
MUS 54 Repertory Chamber Ensemble ......................... 1
MUS 55 Cabrillo Orchestra ..................................... 1
MUS 58 Cabrillo Symphonic Orchestra ......................... 1
MUS 68 Piano Ensemble ...................................... 1

Jazz Option on Instrumental
MUS 44 Repertory Jazz Ensemble ............................. 1
MUS 46 Jazz Ensemble ........................................ 1
MUS 50 Jazz Repertory Workshop ............................. 1
MUS 56 Latin American Music Ensemble ...................... 1
MUS 60 Jazz Combo ........................................... 1

Applied Electives
Guitar
MUS 26A Beginning Jazz/Rock Guitar Techniques .............. 1
MUS 26B Advanced Jazz/Rock Guitar Techniques .............. 1
MUS 27 Beginning Popular Guitar Techniques ................. 1
MUS 33A Beginning Classical Guitar .......................... 1
MUS 33B Intermediate Classical Guitar ......................... 1

Voice
MUS 15A Beginning Jazz & Popular Solo Voice ................. 1
MUS 17A Beginning Voice ...................................... 1
MUS 17B Intermediate Voice .................................. 1
MUS 17C Advanced Voice ...................................... 1
MUS 85A Renaissance and A Cappella Performance Practice ...... 1

MUS 85BV Vocal Diction and Presentation ..................... 1
MUS 85S Sight Singing and Ear Training ........................ 1

Piano
MUS 22A Intermediate Piano .................................. 1
MUS 23 Advanced Piano ....................................... 1
MUS 51B Beginning Piano II ................................... 1
MUS 51J Jazz Piano Techniques ................................ 1
MUS 85P Introduction to Piano Accompanying ................ 1

Strings
MUS 19 Beginning Strings ..................................... 1

Winds/Brass
MUS 18A Beginning Wind (Band) Instruments .................. 1

Percussion
MUS 85C West African Drumming and Rhythms .............. 1
MUS 85D Afro-Caribbean Drumming and Rhythms ............ 1
MUS 85E Drums and Percussion ................................ 1
MUS 85G Javanese Gamelan .................................... 1

Applied Music
MUS 16 Applied Music: Woodwinds, Strings, Brass, Piano, Voice, Percussion ......... 1
Music Courses

MUS 1
Comprehensive Music Theory I
3 units; 3 hours Lecture, 1 hour Laboratory
Corequisite: MUS 1M.
Recommended Preparation: MUS 6 or MUS 5 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Introduces and develops the study of common practice harmony and melody through figured bass and analysis as represented by the works of J.S. Bach, Mozart, and Beethoven. Knowledge of scales, key signatures, intervals and chords, equivalent to MUS 5 or MUS 6, is necessary to succeed in this course.
Transfer Credit: Transfers to CSU, UC.

MUS 1M
Musicianship I
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Corequisite: MUS 1.
Recommended Preparation: MUS 5, MUS 6; Eligibility for ENGL 100 and READ 100.
Teaches and develops ear training, dictation and sight singing, including solfeggio. This is the musicianship component for theory for music majors and minors.
Transfer Credit: Transfers to CSU, UC.

MUS 2
Comprehensive Music Theory II
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 1 or equivalent skills.
Corequisite: MUS 2M.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues development of written skills and analysis from MUS 1, including formal analysis and modulation.
Transfer Credit: Transfers to CSU, UC.

MUS 2M
Musicianship II
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 1M or equivalent skills.
Corequisite: MUS 2.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues development of sightsinging and aural recognition skills from MUS 1M.
Transfer Credit: Transfers to CSU, UC.

MUS 3
Comprehensive Music Theory III
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2 or equivalent skills.
Corequisite: MUS 3.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues development of harmonic and melodic understanding of music literature from MUS 2, including chromaticism. Need not be taken in sequence with Music 4 and 4M.
Transfer Credit: Transfers to CSU, UC.
MUS 3M
Musicianship III
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2 or equivalent skills. MUS 2M
Corequisite: MUS 3.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Advances aural skills from MUS 2M including sevenths, modulation, and non-scale tones.
Transfer Credit: Transfers to CSU, UC.

MUS 4
Comprehensive Music Theory IV
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2 or equivalent skills.
Corequisite: MUS 4M.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Concludes the required music major series with advanced studies in harmonic and formal analysis, late 19th century and 20th century techniques, and composition; need not be taken sequentially from MUS 2.
Transfer Credit: Transfers to CSU, UC.

MUS 4M
Musicianship IV
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2M or equivalent skills.
Corequisite: MUS 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops advanced skills in sight singing and melodic, harmonic and rhythmic dictation continued from either MUS 2M or MUS 3M.
Transfer Credit: Transfers to CSU, UC.

MUS 5
Beginning Jazz/Pop Music Theory
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Theoretical fundamentals of jazz and related modern music, from rhythmic notation, clefs, and intervals through 13th chords with alterations.
Transfer Credit: Transfers to CSU, UC.

MUS 7
Music Synthesis, Sampling, and Electronic Music
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the use of synthesizers and digital sampling in the composition of electronic music. Topics include: analogue synthesis, digital synthesis, digital sampling, sample editing, digital processing, MIDI and electronic music composition, including 'hands-on' experience for individual projects. Basic knowledge of music fundamentals (equivalent to MUS 6 or MUS 5) is recommended for this course.
Transfer Credit: Transfers to CSU.

MUS 9A
Advanced Jazz Theory/Beginning Jazz Arranging
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: MUS 6 or MUS 5 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Continues study of jazz theory and introduces jazz arranging. Includes chord spelling, chord progression, rhythm, melody, chord notation, instrument ranges. Form and music arranging for nine pieces. Knowledge equivalent to beginning jazz theory or music fundamentals is recommended for this course.
Transfer Credit: Transfers to CSU.

MUS 10
Music Appreciation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies music of western civilization during the Baroque, Classical, Romantic and 20th century periods. Understanding and enjoyment of music is developed by the study of the elements of music and other concepts essential to the communication of ideas and emotion. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

MUS 10M
Historical Survey of Music
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 6 or MUS 5 or equivalent skills
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces music history and literature of western culture from Renaissance through the present day, including important composers, masterworks and stylistic trends. Score reading, listening, and introduction to research tools. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.
MUS 11A  
Jazz Appreciation  
3 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Designed for the student to become an active listener of jazz, to be aware of what is happening, and how and who is making it happen. Aesthetic criteria for examining and evaluating jazz performances.  
Transfer Credit: Transfers to CSU, UC.

MUS 11LA  
Latin American Music Appreciation  
3 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces the folk and popular musical traditions of Latin American cultures, with an emphasis on cultural roots and the evolution of contemporary regional styles. Weekly reading assignments, participation in online discussions and research, and listening to recorded music through recordings and attendance at live performances. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU, UC.

MUS 12  
World Music  
3 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Surveys the traditional music cultures of Asia, Africa, Europe, Native America and Latin America. Emphasis is on the evolution and performance practices of musical styles and the relationship between a culture's music and its religious, political, and social structure. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU, UC.

MUS 13A  
Survey of American Popular Music  
3 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Surveys American popular music as represented by pop, rock, jazz, classical, country western, theatre music, regional and traditional folk music and their cross cultural and world music influences. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU, UC.

MUS 15A  
Beginning Jazz and Popular Solo Voice  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken 2 times (with satisfactory progress).  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
The study and performance of songs in the popular and jazz idioms: phrasing, expression, stage presence and microphone techniques. Students should have some ability to read music and sing a melody.  
Transfer Credit: Transfers to CSU.

MUS 15B  
Advanced Jazz and Popular Solo Voice  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken 2 times (with satisfactory progress).  
Prerequisite: MUS 15A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Advanced study and performance of songs in the popular and jazz idioms. Advanced coverage of 15A areas. Analysis of historical and motivational aspects of performances.  
Transfer Credit: Transfers to CSU.

MUS 16  
Applied Music: Woodwinds, Strings, Brass, Piano, Voice, Per  
1 unit; 2 hours Lecture  
Repeatability: May be taken 4 times (with satisfactory progress).  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Applied instruction for music majors/minors in the student's specific performing medium, with emphasis on technique and performance. Scholarship students are required to be concurrently enrolled in a music theory class and a performance class. Audition is required to scholarship consideration.  
Transfer Credit: Transfers to CSU, UC.

MUS 17A  
Beginning Voice  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Fundamentals of singing techniques, including breath support and tone production. Studies traditional vocal repertoire of music by composers from the baroque to the twentieth century. Students should have some ability to read music.  
Transfer Credit: Transfers to CSU, UC.

MUS 17B  
Intermediate Voice  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: MUS 17A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Continues the study of fundamentals of singing techniques, including breath support, tone production and performance practice. Studies traditional vocal repertoire of music by composers from the Baroque to the 20th Century.  
Transfer Credit: Transfers to CSU, UC.

MUS 17C  
Advanced Voice  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken 2 times with satisfactory progress.  
Prerequisite: MUS 17B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Continues the study of singing techniques, emphasizing resonance and legato tone. Traditional vocal repertoire of music by composers from the Baroque to the twentieth century.  
Transfer Credit: Transfers to CSU, UC.
MUS 18A
**Beginning Wind (Band) Instruments**
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times, with satisfactory progress.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Group instruction on flute, oboe, bassoon, clarinet, saxophone, trumpet, French horn, trombone, baritone, tuba and percussion. No experience necessary. Students should provide their own instruments. Some instruments are available for checkout from the music department.
*Transfer Credit: Transfers to CSU, UC.*

MUS 18B
**Intermediate Concert Band**
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: MUS 18A or equivalent skills; Eligibility for ENGL 100 and READ 100.

Study and performance of band literature for intermediate wind players: flute, clarinet, saxophone, oboe, bassoon, trumpet, trombone, French horn, bass and percussion. Emphasis on sight-reading and rehearsal techniques. Must have ability to read intermediate music at sight and play an instrument with intermediate proficiency.
*Transfer Credit: Transfers to CSU, UC.*

MUS 18J
**Intermediate Jazz Band**
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: MUS 18A or equivalent experience; Eligibility for ENGL 100 and READ 100.

Presents the study and performance of jazz ensemble literature for intermediate wind, brass and rhythmic section (keyboard, guitar, bass, percussion). Emphasizes sight-reading and rehearsal techniques. Must have ability to read intermediate music at sight and play an instrument with intermediate proficiency.
*Transfer Credit: Transfers to CSU, UC.*

MUS 19
**Beginning Strings**
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides beginning level group instruction in how to play the violin, viola, cello and string bass. Use of both rote and note approaches. No experience necessary. Students should provide their own instruments. Some are available for class use only.
*Transfer Credit: Transfers to CSU, UC.*

MUS 20
**Intermediate Orchestra Instruments**
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: MUS 18A or MUS 19; Eligibility for ENGL 100 and READ 100.

Provides intermediate instruction for string and orchestra wind players: violin, viola, cello, string bass, flute, oboe, bassoon, recorder, trombone, trumpet, clarinet, F horn, piano, and percussion. The class emphasizes sight reading and rehearsal techniques of many pieces. Basic knowledge of instrumental music equivalent to MUS 18A or MUS 19 is needed for this course. Must have ability to read intermediate music at sight and play an instrument with proficiency.
*Transfer Credit: Transfers to CSU, UC.*

MUS 22A
**Intermediate Piano**
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times (with satisfactory progress).
Prerequisite: MUS 51B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Continues technical studies, improvisation, performance, and practicing of piano literature. Students should have an understanding of basic (equivalent to Music 51B) technique, theory and music reading. Students should be able to play simple pieces with independent hands for classical and popular styles.
*Transfer Credit: Transfers to CSU, UC.*

MUS 23
**Advanced Piano**
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times (with satisfactory progress).
Prerequisite: MUS 22A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Continues technical keyboard studies with an emphasis on musical analysis, interpretation, performance, literature and style. Class and private instruction. Students should have an understanding of technique, theory and music reading equivalent to MUS 22A or at the intermediate piano level.
*Transfer Credit: Transfers to CSU, UC.*

MUS 24A
**Beginning Jazz Improvisation**
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduced element and stylistic practices of jazz improvisation for classroom and public performance. Accuracy of technique, validity of style, shadings of interpretation, disciplines of rehearsal and performance. Students should have the ability to play an instrument with proficiency and read music at sight.
*Transfer Credit: Transfers to CSU, UC.*
MUS 24B  
Intermediate Jazz Improvisation  
1 unit; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: MUS 24A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Continuation of the basics and scale foundations for jazz improvisation initiated in MUS 24A.  
Transfer Credit: Transfers to CSU, UC.

MUS 24C  
Advanced Jazz Improvisation  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken 2 times (with satisfactory progress).  
Prerequisite: MUS 24B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Designed to give students the ability to perform improvised solos to "standards" and other jazz compositions. Improvisation both by memory and by reading chord symbols. Knowledge of jazz improvisation equivalent to MUS 24A and 24B is recommended for this course.  
Transfer Credit: Transfers to CSU, UC.

MUS 26A  
Beginning Jazz/Rock Guitar Techniques  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces guitar techniques commonly used in jazz and rock music. Extended chords, chord substitutions, modes, scale patterns, comping, chord melody playing. Students should have experience equivalent to a beginning popular music guitar course.  
Transfer Credit: Transfers to CSU, UC.

MUS 26B  
Advanced Jazz/Rock Guitar Techniques  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken 2 times (with satisfactory progress).  
Prerequisite: MUS 26A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Continues study of guitar techniques with in-depth fretboard technique, extended harmony chord substitution, improvisation techniques and chord solo playing. Students should have experience equivalent to a jazz/rock guitar course.  
Transfer Credit: Transfers to CSU, UC.

MUS 27  
Beginning Popular Guitar Techniques  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies basic guitar techniques for popular and jazz music; student should have own instrument and knowledge of at least eight chords on the guitar.  
Transfer Credit: Transfers to CSU, UC.

MUS 28  
Popular Songwriting  
2 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Techniques and ideas for the songwriter and the serious student of popular music. Popular songs, and student compositions discussed in terms of form, rhythm, melody, harmony and the lyrics/music relationship. Basics of copyrights and publishing will also be covered.  
Transfer Credit: Transfers to CSU.

MUS 31A  
Introduction to Recording Studio  
3 units; 3 hours Lecture, 2 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces basic recording and music production skills, utilizing computer-based technologies. Topics include microphones, multi-track recording, digital audio, mixing, MIDI, the behavior of sound, live sound, and commercial music production. Students will have individual lab time for "hands on" experience. Basic knowledge of music fundamentals (equivalent to MUS 6 or 5A) is recommended for this course.  
Transfer Credit: Transfers to CSU.

MUS 31B  
Intermediate Recording Techniques:  
The Project Studio  
3 units; 3 hours Lecture, 2 hours Laboratory  
Repeatability: May be taken 2 times.  
Prerequisite: MUS 31A, MUS 57 or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Continues studies of recording techniques in preparation and production of music, utilizing computer-based technology. For studio musicians, and home or professional recording engineers, this course maximizes the production capabilities of combining computer technology with traditional recording techniques.  
Transfer Credit: Transfers to CSU.

MUS 33A  
Beginning Classical Guitar  
1 unit; 2 hours Lecture, 1 hour Laboratory  
Recommended Preparation: MUS 5, MUS 6 or equivalent; Eligibility for ENGL 100 and READ 100.  
Introduces basic classical guitar technique and repertoire for the student with little or no experience, including music reading and right and left hand techniques. Students will learn simple pieces in the classical style. Students should provide their own guitars.  
Transfer Credit: Transfers to CSU, UC.
MUS 33B
Intermediate Classical Guitar
1 unit; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 3 times (with satisfactory progress).
Prerequisite: MUS 33A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues the study of classical guitar techniques from MUS 33A. Emphasis on technique, sight reading, development of repertoire, performance, and transcription and transposition. Student should have experience equivalent to beginning guitar.
Transfer Credit: Transfers to CSU, UC.

MUS 34
Cabrillo Cantata Chorus
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Rehearsal and performance of choral music techniques and stylistic performance practice, emphasizing cantatas from the Baroque to the present day. A level of proficiency demonstrated by audition is required for this course. Audition includes sight-reading, foreign languages and demonstration of musicianship skills.
Transfer Credit: Transfers to CSU, UC.

MUS 35
College Choir
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies traditional to contemporary choral music for students with no previous choral background, with an emphasis on tone production, rhythm and sight singing skills. Should be taken in a two semester sequence.
Transfer Credit: Transfers to CSU, UC.

MUS 36
Chorale
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Rehearsal and performance of choral music from various cultures and choral periods. Students should demonstrate basic music reading skills and match pitch.
Transfer Credit: Transfers to CSU, UC.

MUS 37W
Watsonville Center Community Chorus
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores choral music of the world, including Latin, folk, gospel, African and traditional styles. For inexperienced and experienced singers. Students should have the ability to match pitch.
Transfer Credit: Transfers to CSU, UC.

MUS 38
Jazz Singers
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and performance of vocal jazz ensemble literature, including choral and solo work. Topics will include: jazz styles, rhythm, musicianship, solo improvisation and ensemble sound concepts. Musical skills demonstrated by audition.
Transfer Credit: Transfers to CSU, UC.

MUS 39
Westside Community Folk Song/Gospel Choir
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
For experienced and inexperienced singers, this group studies and performs the literatures of folk, gospel, African, South American, and Asian music. Students should have the ability to match pitch.
Transfer Credit: Transfers to CSU, UC.

MUS 40
Chamber Music Ensemble
1 unit; 4 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and performance of chamber music for strings, winds, percussion and piano. Students with intermediate to advanced playing experience will be placed in an ensemble such as a trio, quartet or quintet. Students must have the ability to read music at sight and play an instrument with proficiency.
Transfer Credit: Transfers to CSU, UC.

MUS 44
Repertory Jazz Ensemble
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and preparation of professional level materials published from the swing era to present day literature suitable for the large jazz ensemble. Must be able to read music at sight and play an instrument; enrollment by audition only.
Transfer Credit: Transfers to CSU, UC.
MUS 46
Jazz Ensemble
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study, rehearsal, recording and performance of contemporary big band jazz for advanced brass, wind, and rhythm section players. Enrollment by audition only. Must be able to read music at sight and play an instrument.
Transfer Credit: Transfers to CSU, UC.

MUS 47
Guitar Ensemble
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Rehearsal and performance of guitar music arranged for large and small ensembles. For guitarists who read music. Sight reading, following a conductor, group rehearsals, public performances. Students should have music instruction equivalent to MUS 26A and MUS 26B or MUS 33A and MUS 33B.
Transfer Credit: Transfers to CSU, UC.

MUS 48
Concert Band
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and performance of Baroque through Contemporary wind literature. Students must have the ability to read music at sight and play a wind or a percussion instrument at college level. Proficiency demonstrated by audition.
Transfer Credit: Transfers to CSU, UC.

MUS 49
College Symphonic Winds
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and performance of twentieth century band repertoire. Correct playing techniques applicable to the stylistic demands of twentieth century literature. Student must have the ability to read music at sight, play a wind or percussion instrument at college level proficiency which is demonstrated by audition.
Transfer Credit: Transfers to CSU, UC.

MUS 50
Jazz Repertory Workshop
1 unit; 4 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: MUS 24C or equivalent skills; Eligibility for ENGL 100 and READ 100.
Rehearsal and performance of compositions written in the jazz idiom for small groups of brass, wind and rhythm section players. Emphasis on chord progression analysis, solo devices, and improvisation. Audition required.
Transfer Credit: Transfers to CSU, UC.

MUS 51A
Beginning Piano I
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces technical and musical piano studies for students with little or no experience. Basic hand technique, theory and music reading will be taught as the student learns to play simple pieces with independent hands in classical and popular styles.
Transfer Credit: Transfers to CSU, UC.

MUS 51B
Beginning Piano II
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times (with satisfactory progress).
Prerequisite: MUS 51A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues development of piano techniques, with more advanced work on repertory, theory and reading music at the keyboard. Student must be able to play simple pieces with independent hands in classical and popular styles, equivalent to MUS 51A, with an understanding of basic technique, theory and music reading.
Transfer Credit: Transfers to CSU, UC.

MUS 51J
Jazz Piano Techniques
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: MUS 51A or equivalent skills; Eligibility for ENGL 100 and READ 100.
Studies jazz piano style through group piano lessons, including chord and polychord voicings, symbols, chord substitutions, progressions, rhythmic patterns. Simple melodic techniques and accompaniment. Student should have the equivalent of one semester of piano training.
Transfer Credit: Transfers to CSU, UC.

MUS 52
Percussion Ensemble
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces performance techniques of drums and percussion instruments used in contemporary jazz, popular, classical and world music. Explores rhythmic development and coordination in sectional and full ensemble settings, with the intention of public performance. This course may be taken four times.
Transfer Credit: Transfers to CSU, UC.
MUS 52LA
Latin American Drumming
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops hand drumming technique and rhythmic comprehension through the exploration of African-influenced Latin American rhythms. Studies rhythms from Cuba and other Caribbean cultures, Brazil, Colombia, Venezuela, and Peru.
Transfer Credit: Transfers to CSU, UC, pending review.

MUS 53
Baroque Chamber Ensemble
1 unit; 4 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and performance of chamber music from the Baroque and other eras for strings, winds, percussion and piano. Discussion and lecture of baroque style, interpretation and performance. Must have the ability to read music at sight and play an instrument with proficiency.
Transfer Credit: Transfers to CSU, UC.

MUS 54
Repertory Chamber Ensemble
1 unit; 4 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and performance of chamber music for winds, strings, piano and percussion in large chamber groupings. Augmented chamber, quintets and larger works will be studied. Ability to read music at sight and play an instrument with proficiency.
Transfer Credit: Transfers to CSU, UC.

MUS 55
Cabrillo Orchestra
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Rehearsal and performance of standard orchestral literature. Must have ability to read music at sight and play an instrument with proficiency.
Transfer Credit: Transfers to CSU, UC.

MUS 56
Latin American Music Ensemble
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and performance of music from selected Latin American cultures. Open to all musicians, including brass, winds, strings, guitars, keyboards, percussion and vocalists. Must be proficient on an instrument or voice, as demonstrated by audition or prior consent of instructor.
Transfer Credit: Transfers to CSU, UC.

MUS 57
Music and Computers
3 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the use of MIDI sequencing, music notation and Digital Audio production software to augment the study of music. Topics include: sequencing, notation, and education software, and the arranging and buying of equipment. Students will have “hands-on” experience through individual projects. Basic knowledge of music fundamentals (equivalent to MUS 6 or 5A) is recommended for this course.
Transfer Credit: Transfers to CSU.

MUS 58
Cabrillo Symphonic Orchestra
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study and performance of traditional to contemporary orchestral works, with an emphasis on sight reading and stylistic interpretation. Must have the ability to read music at sight and play an instrument with proficiency.
Transfer Credit: Transfers to CSU, UC.

MUS 60
Jazz Combo
1 unit; 4 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: MUS 24C or equivalent skills; Eligibility for ENGL 100 and READ 100.
Preparation and performance of all types of popular music using the principles of jazz improvisation in a small group setting. Knowledge of Jazz Improvisation (equivalent to MUS 24B and MUS 24C) is recommended for this course. Audition required.
Transfer Credit: Transfers to CSU, UC.

MUS 61
Cabrillo Symphonic Chorus
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An in-depth study of choral music techniques and performance of 18th century through present day masterworks for the large choral ensemble. A level of proficiency demonstrated by audition is required for this course. Audition includes sight-reading, foreign languages, and demonstration of musicianship skills.
Transfer Credit: Transfers to CSU, UC.

MUS 61SU
Cabrillo Summer Chorus
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Ability to match pitch; Eligibility for ENGL 100 and READ 100.
Presents choral repertoire and choral singing techniques for study, rehearsal and performance to inexperienced and experienced singers.
Transfer Credit: Transfers to CSU, UC.
MUS 62
Cabrillo Touring Chorus
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An in-depth study of choral music techniques and performance from the Renaissance through present-day, with an emphasis on concerts combined with study-travel. Students must demonstrate a level of proficiency by audition.
Transfer Credit: Transfers to CSU, UC.

MUS 63
Chamber Choir
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Rehearsal and performance of traditional through avant-garde vocal chamber literature. Emphasis on the development of appropriate choral skills. Students must demonstrate an ability to read music and audition.
Transfer Credit: Transfers to CSU, UC.

MUS 64
Cantiamo Cabrillo
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A premiere vocal chamber ensemble performing literature from the Renaissance to the modern era including opera scenes. Students must audition. Audition includes sight reading, ear-training, demonstration of language skills.
Transfer Credit: Transfers to CSU, UC.

MUS 65
Cabrillo Women's Choir
1 unit; 3 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A no-audition chorus of women's voices, performing classical and popular music. Builds vocal and musicianship skills in a small ensemble designed to provide individual attention through the study of choral music for women.
Transfer Credit: Transfers to CSU, UC.

MUS 66
Opera Workshop
1 unit; 3 hours Lecture, 2 hours Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies musical and dramatic elements of opera theatre, including performance of selected scenes and complete works from standard repertoire chosen to meet unique student needs. Students must demonstrate the ability to read music and audition.
Transfer Credit: Transfers to CSU, UC.

MUS 67
Opera Theater Production
1 unit; 4 hours Lecture, 1 hour Activity
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies musical and dramatic elements of opera theatre and production culminating in a publically performed opera. Student must demonstrate an ability to read music and audition.
Transfer Credit: Transfers to CSU, UC.

MUS 68
Piano Ensemble
1 unit; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times (with satisfactory progress).
Prerequisite: MUS 51B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies technique, interpretation, style, and performance of ensemble piano literature, including music for one piano four-hands, music for two and three pianos four to six hands.
Transfer Credit: Transfers to CSU, UC.

MUS 74
Introduction to Musical Theatre
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces basic techniques of musical theatre on stage; stage presence; training in overcoming the particular problems of musical comedy: singing, acting and movement.
Transfer Credit: Transfers to CSU, UC.

MUS 75
Summer Musical
1-3 units; 9 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Rehearsal and performance of musical and musical comedy literature with concentration on all aspects of the production related to professional performance. Audition required for enrollment, enrollment subject to spring audition by summer musical staff.
Transfer Credit: Transfers to CSU, UC.

MUS 77
Correlation of the Arts
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies similarities and differences in the visual arts, music, and theatre arts are studied from an interdisciplinary perspective. Presents topics in creativity, aesthetics, style, and historical context are presented from a variety of viewpoints. Develops an awareness, understanding, and respect for diverse cultures through lecture, performance, and demonstration.
Transfer Credit: Transfers to CSU, UC.
MUS 85A–Z
Studies in Music
1-3 units; 1.5 hours Lecture, 0.5 hour Laboratory
Repeatability: May be taken 4 times. Each special topics may be taken a total of 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Specialized study of particular topics in Music. The specific course content will be described in the Schedule of Classes.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

MUS 200
Freeing the Natural Voice
1 unit; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Beginning voice production for singing and speaking. Aims to develop free, flexible tone quality, to perfect interpretive and performance skills, to overcome nervousness and self-consciousness. Prepares students for participation in more advanced course work in the Performing Arts curriculum.

MUS 250
Music Laboratory
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 4 times.
A supervised audio/video/computer lab class relating to other Music course curriculum. Designed to increase student skills and concepts. Each 1/2 unit lab section requires 16 hours of study. pass/no pass only. Enrollment is permitted through the twelfth week of instruction.

MUS 534
Cabrillo Cantata Chorus For Seniors
0 units; 3 hours Lecture, 2 hours Activity
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of choral music, emphasizing cantatas and seasonal music. Designed for senior citizens.

MUS 539
Westside Community Choir for Seniors
0 units; 3 hours Lecture, 1 hour Activity
Repeatability: May be repeated.
Explores the literatures of folk, gospel, African, South American and Spirituals. For experienced and inexperienced singers; designed for senior citizens.

MUS 546
Jazz Ensemble for Seniors
0 units; 3 hours Lecture, 2 hours Activity
Repeatability: May be repeated.
Recommended Preparation: Ability to play an instrument from the traditional jazz genre.
A program for participating in the rehearsal and performance of literature arranged for jazz ensemble, designed for senior citizens.

MUS 548
Concert Band For Seniors
0 units; 3 hours Lecture, 1 hour Activity
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of Renaissance, baroque, romantic, and classical music and the stylistic demands of these periods. Students must have the ability to read music at sight, play a brass, wind or percussion instrument at college level proficiency. Designed for senior citizens.

MUS 549
College Symphonic Winds For Seniors
0 units; 3 hours Lecture, 1 hour Activity
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of wind literature. Students must have the ability to read music at sight, play a brass, wind or percussion instrument at college level proficiency. Designed for senior citizens.

MUS 555
Cabrillo Orchestra For Seniors
0 units; 3 hours Lecture, 1 hour Activity
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of standard orchestral literature; designed for senior citizens.

MUS 558
Cabrillo Symphonic Orchestra For Seniors
0 units; 3 hours Lecture, 1 hour Activity
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of orchestral literature from the Baroque through Contemporary periods. Designed for senior citizens.

MUS 561
Cabrillo Symphonic Chorus For Seniors
0 units; 3 hours Lecture, 2 hours Activity
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of choral literature. Designed for senior citizens. May be repeated.

MUS 563
Cabrillo Chamber Choir for Seniors
0 units; 3 hours Lecture, 2 hours Activity
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of vocal chamber ensemble literature from the nineteenth century to present day. Students must audition. Designed for senior citizens. Audition includes sight reading, ear-training, demonstration of language skills.
**MUS 564**

**Cantiamo Cabrillo for Seniors**

0 units; 3 hours Lecture, 1 hour Activity

Repeatability: May be repeated.

A program for participation in the rehearsal and performance of vocal chamber ensemble performing literature from the Renaissance to the modern era including opera scenes. Designed for senior citizens. Students must audition. Audition includes sight reading, ear-training, demonstration of language skills.

**MUS 565**

**Cabrillo Women's Choir for Seniors**

0 units; 3 hours Lecture, 1 hour Activity

Repeatability: May be repeated.

A program for participation in the rehearsal and performance of choral music arranged for women's voices. Designed for senior citizens. May be repeated.

**NURSING**

**Health, Wellness, Physical Education and Athletics Division**

Kathleen Welch, Division Dean

Division Office, Room 1102

Tom McKay, Director of Allied Health

Dorothy Nunn, Program Chair, (831) 479-6130

Nursing Education Department Office, Room 1550, (831) 479-6280

Aptos Counselor: (831) 479-6274 for appointment

Watsonville Counselor: (831) 477-5134

For more information: http://www.cabrillo.edu

**Nursing Occupational Program:**

**Associate Degree Nursing Program**

Students are admitted to the Associate Degree Nursing (ADN) Program in August or February of each year. Theory courses, practice skills labs and clinical experiences are coordinated to enhance the student's learning. Students are eligible to write the National Council Licensure Examination for Registered Nurses (NCLEX-RN) at the completion of all required courses. Due to the intense nature of the Associate Degree Nursing Program, it is advisable to complete as many of the general education requirements as possible before entering.

**How To Apply**

Admission to the nursing program requires a separate and additional process to the general college admission. Nursing program information and application forms are available in the Nursing Education Department Office (Room 1550) and on the website (www.cabrillo.edu/academics/nursing) and in the Nursing Education Department Office, Room 1550. General college application materials are available: in the Admissions and Records Office, Enrollment Services Center, Building 100, (831) 479-6201; online (www.cabrillo.edu) or by mailing a written request for the application to Cabrillo College Admissions and Records, 6500 Soquel Drive, Aptos, CA 95003.

Read all material in the application packet and the appropriate sections of the Cabrillo College Catalog about the associate degree of nursing program, academic regulations, attendance, and graduation requirements. Return the completed nursing application forms to the Nursing Education Department by certified mail. You must include two sets of official transcripts from all colleges attended (including Cabrillo College transcripts).

Applications will not be considered complete if prerequisites are in progress and/or the student's files are incomplete. Students are responsible for submitting a complete application to the Nursing Department Education office, which must be sent by certified mail. It is the responsibility of the student to inform the Nursing Education Department of any change in address or telephone number.

**Process of Application**

Students will be selected according to the certified mail postmark date when a completed application is filed in the Nursing Education Department office.

A complete application includes:

- Nursing application form,
- Two sets of official, sealed college transcripts from all colleges attended (including Cabrillo College) showing completion of all prerequisites,
- A high school transcript is only required if a high school course will be used to meet a nursing prerequisite.

All prerequisites and nursing courses must be completed with a grade of "C" (2.0 GPA) or better, except BIO 5 and BIO 6. These courses must be completed with a combined GPA of 2.5 or better.

**ASSOCIATE IN SCIENCE DEGREE IN NURSING**

**Prerequisites**

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Units</th>
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<tbody>
<tr>
<td>*BIO 4</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>*BIO 5</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>*BIO 6</td>
<td>Microbiology</td>
</tr>
<tr>
<td>*ENGL 1A/1AH/1AMC/1AMCH</td>
<td>College Composition</td>
</tr>
<tr>
<td>(MATH 154, or equivalent is a prerequisite for CHEM 30A; CHEM 30A or CHEM 32** is a prerequisite for BIO 5 and BIO 6.)</td>
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<tr>
<td>*Max 2 courses can also be used to satisfy appropriate general education areas.</td>
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</tbody>
</table>

**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>N 14-N 44</td>
<td>Nursing Theory I to IV</td>
</tr>
<tr>
<td>N 15-N 45</td>
<td>Nursing Practicum I to IV</td>
</tr>
<tr>
<td>N 16-N 26</td>
<td>Nursing Skills Lab I to II</td>
</tr>
<tr>
<td>N 17-N 27</td>
<td>Pharmacology A to B</td>
</tr>
<tr>
<td>N 48</td>
<td>Preceptorship</td>
</tr>
</tbody>
</table>

**Additional Graduation Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>COMM 1/1H</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
</tr>
<tr>
<td>SOC 2/2H</td>
<td>Contemporary Social Problems</td>
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<tr>
<td>OR</td>
<td></td>
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<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
</tr>
</tbody>
</table>

**Please note that the above courses may also be used to satisfy appropriate general education areas.**
General Education
Nursing students are exempt from the 3 unit Area E requirement (Lifelong Understanding & Self-Development) on the 21 unit A.S. general education pattern. As such, this A.S. Degree requires completion of an 18-unit general education pattern (see Cabrillo College Catalog under Associate in Science Degree or the A.S. Degree worksheets available in the Counseling Division or on the Transfer and Articulation website at www.cabrillo.edu.)

Completing a U.S. History or U.S. Political Science course and a Humanities course, in addition to the above Prerequisites and Graduation Requirements, will complete the A.S. Degree general education pattern for nursing students.

A Bachelor of Science/Bachelor of Arts Degree from a regionally accredited college or university will satisfy all general education and competency requirements for Cabrillo’s non-transfer A.A. and A.S. Degrees, with the exception of program specific graduation requirements.

Math Competency Requirement
The A.S. Degree Mathematics Requirement may be met by successful completion of intermediate algebra or equivalent or a higher-level mathematics course with a grade of "C" or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.

Multicultural Requirement
An approved multicultural course is required for graduation. This course may be double counted with general education or other program graduation requirements. Courses taken at other regionally accredited colleges can be used when approved by a Cabrillo counselor.

Health and Security Screening
To comply with state and local regulations for health care providers, students enrolled in the Cabrillo College Nursing program are required to meet vaccination and drug testing requirements and provide documentation to the Student Health Center before entering the program. Students are also required to complete criminal background checks, and may be required to undergo fingerprinting.

Associate in Science Degree in Nursing
General Education + Prerequisites ........................................... 30
Core Courses ........................................................................... 40

Nursing Electives: not required for Nursing Degree
ALH 101 Review of Anatomy and Physiology ............... 2
N 105 Role Transition ......................................................... 1
N 109 Nursing Skills Practice Lab ....................... ½-8
N 199C Cooperative Work Experience ................. 1-4

Total for A.S. Degree in Nursing .............................................. 70

RN Transfer/LVN Students
RN transfer students and LVNs who desire admission to and/or advanced placement in the Cabrillo College Associate Degree Nursing program must meet the program prerequisites. Students are accepted on a space available basis. LVNs will be evaluated for placement and may enter the 2nd and 3rd semesters of the Nursing program. Contact the Nursing Education Department Office for details.

Thirty-Unit Option
Any student with a current LVN license may apply for the 30-unit option program. The 30-unit option plan provides the necessary course work required to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Completion of the program does not constitute graduation from the Cabrillo College Nursing Program nor does it make students eligible for the Associate Degree in Nursing. Licensure is limited to California when taking the 30-unit option. Contact the Nursing Education Department Office for details.

Pre-Nursing Transfer Information
Transfer students have three sets of requirements to consider for successful transfer to UC, CSU and most private institutions. They are:

1. admission requirements to the specific university,
2. general education requirements at the specific university, and
3. lower division preparation in the major (courses needed to be admissible to the major.)

To ensure that you understand and include all of the above in your educational plan, it is essential to meet with a counselor early in your attendance at Cabrillo College. Information on equivalencies for general education and major requirements at UC and CSU are available at www.assisst.org.

Course Units

<table>
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</tr>
<tr>
<td>CAHM 20</td>
<td>Nutrition</td>
</tr>
<tr>
<td>CHEM 30AB</td>
<td>Chemistry for Health Occupations</td>
</tr>
<tr>
<td>OR</td>
<td>CHEM 32* Chemistry for the Allied Health Major</td>
</tr>
<tr>
<td>COMM 1/1H</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>College Composition</td>
</tr>
<tr>
<td>ENGL 2</td>
<td>Composition and Critical Thinking</td>
</tr>
<tr>
<td>MATH 12/12H</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
</tr>
</tbody>
</table>

Consult appropriate catalog for specific requirements.

*CHEM 32 is a one-semester alternative that satisfies the CHEM 30A/30B two-semester sequence required for students transferring to some 4-year Nursing Programs. Please see a counselor or check www.assisst.org for more information. CHEM 32 also satisfies the prerequisite requirement for BIO 5 and BIO 6.
Nursing Courses

N 14
Foundations of Nursing Practice: Theory I
4 units; 4 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: Admission to Associate Degree Nursing Program. ENGL 1A/1AH/1AMC/1AMCH, BIO 4; Completion of BIO 5, BIO 6 with a combined GPA of 2.5 or better.
Corequisite: N 15, N 16, N 17.
Recommended Preparation: All sciences completed within last five years.
Develops a knowledge base needed to provide beginning nursing care to clients in perinatal and medical/surgical settings, introducing the nursing process and the Neuman Systems Model. Includes prevention, treatment and restoration of health for clients with common health problems. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated. No more than one semester in the nursing program may be repeated.
Transfer Credit: Transfers to CSU.

N 15
Clinical Skills and Nursing Practicum I
4 units; 12 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Admission to the Associate Degree Nursing Program.
Corequisite: N 14, N 16, N 17.
Recommended Preparation: All sciences completed within the last five years.
Introduces the nursing process and the Neuman Systems Model; student begins to provide nursing care to clients with common health problems across the life course, in perinatal and medical/surgical settings.
Transfer Credit: Transfers to CSU.

N 16
Basic Nursing Skills and Medications Laboratory I
1.5 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Admission to Associate Degree Nursing Program.
Corequisite: N 14, N 16, N 17.
Recommended Preparation: All sciences completed within last five years.
Provides the theory along with laboratory application for selected fundamental nursing skills. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated. No more than one semester in the nursing program may be repeated.
Transfer Credit: Transfers to CSU.

N 17
Pharmacology A
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken 2 times.
Prerequisite: Admission to the Associate Degree Nursing Program.
Corequisite: N 14, N 15, N 16.
Recommended Preparation: All sciences completed within the last five years.
Introduces basic pharmacologic principles to nursing care of adults with common health problems.
Transfer Credit: Transfers to CSU.

N 24
Nursing in Wellness and Illness: Theory II
5 units; 5 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: N 14, N 15, N 16, N 17.
Corequisite: N 25, N 26, N 27.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops knowledge base needed to provide intermediate nursing care to clients in pediatric and medical/surgical settings utilizing the nursing process and the Neuman Systems Model. Includes prevention, treatment, and restoration of health for clients with selected health issues. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated. No more than one semester in the nursing program may be repeated.
Transfer Credit: Transfers to CSU.

N 25
Clinical Skills and Nursing Practicum II
4 units; 12 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: N 14, N 15, N 16, N 17.
Corequisite: N 24, N 26, N 27.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Utilizes the nursing process and the Neuman Systems Model; student provides intermediate nursing care to clients with common acute and chronic health concerns in the pediatric and medical/surgical setting, with an emphasis on prevention, treatment and restoration of health.
Transfer Credit: Transfers to CSU.

N 26
Advanced Nursing Skills and Medications Laboratory II
1.5 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: N 14, N 15, N 16, N 17.
Corequisite: N 24, N 25, N 27. Exception: LVNs requesting admission with advanced standing to ADN program may take this course without corequisites on a space-available basis.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides classroom theory and laboratory application of theory for selected advanced nursing skills. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated. No more than one semester in the nursing program may be repeated.
Transfer Credit: Transfers to CSU.
N 27
Pharmacology B
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken 2 times.
Prerequisite: N 17, N 14, N 15, N 16.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops theoretical knowledge of drug therapy to client care.
Transfer Credit: Transfers to CSU.

N 34
Nursing in Wellness and Illness: Theory III
5 units; 5 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: N 24, N 25, N 26, N 27.
Corequisite: N 35.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Expands the knowledge base needed to provide nursing care to clients with moderately complex health problems in medical-surgical, geriatric and community settings, utilizing the nursing process and the Neuman Systems Model.
Transfer Credit: Transfers to CSU.

N 35
Clinical Practicum and Nursing Care Management III
5 units; 15 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: N 24, N 25, N 26, N 27.
Corequisite: N 34.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies the nursing process and the Neuman Systems Model; student provides safe, appropriate nursing care to clients with moderately complex acute and chronic health problems in geriatric, medical-surgical, and community settings.
Transfer Credit: Transfers to CSU.

N 44
Nursing in Wellness and Illness: Theory IV
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: N 34, N 35.
Corequisite: N 45.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Expands the knowledge base needed to provide nursing care to clients and client systems with complex psychosocial and physiological health problems in a variety of psychiatric and medical-surgical settings, utilizing the nursing process and the Neuman Systems Model. Develops leadership and management principles.
Transfer Credit: Transfers to CSU.

N 45
Clinical Practicum and Nursing Care Management IV
3.5 units; 10.5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: N 34, N 35.
Corequisite: N 44.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies the nursing process and the Neuman Systems Model by providing comprehensive nursing care to clients with complex acute and chronic health problems in medical-surgical and psychiatric settings; emphasis is on the use of leadership skills in managing groups of clients in the medical surgical setting.
Transfer Credit: Transfers to CSU.

N 48
Clinical Nursing Preceptorship
2.5 units; 7.5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: N 44, N 45.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies the nursing process and the Neuman Systems model utilizing leadership skills and providing comprehensive care and management for a group of clients in a medical-surgical or specialty setting, under the direct supervision of a preceptor, an experienced staff nurse.
Transfer Credit: Transfers to CSU.

N 103
Pharmacology in the Clinical Setting
2 units; 2 hours Lecture
Prerequisite: N 27 or equivalent, or RN or LVN license.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies pharmacokinetic and pharmacodynamic principles to selected patient care situations. Designed for the advanced AD nursing student, or licensed RN or LVN, with beginning knowledge of pharmacology.

N 105
Role Transition
1 unit; 1 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: LVN. All nursing prerequisites must be completed.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Facilitates Licensed Vocational Nurses in their transition to the Registered Nurse role prior to entering the Nursing Program with advanced standing. Covers standards of nursing care, critical thinking skills and application of the nursing process using the Neuman Systems Model.
N 109  
Nursing Skills Practice Lab  
0.5-3 units; 1.5 hours Directed Study  
Repeatability: May be taken 4 times.  
Hybrid Requisite: Currently enrolled in nursing program or with permission from Nursing Academic Skills Specialist.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides resources to nursing students for independent study in nursing skills lab.

NUTRITION  
See: Culinary Arts and Hospital Management

OCEANOGRAPHY  
Natural and Applied Sciences Division  
Wanda Garner, Division Dean  
Division Office, Room 701  
David Schwartz, Program Chair, (831) 479-6495  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6297 or (831) 479-6348 for more information  
http://www.cabrillo.edu/programs

Oceanography Courses

OCEAN 10  
Introduction to Oceanography  
4 units; 3 hours Lecture, 3 hours Laboratory  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  
Introduces some of the more important phenomena in oceanography: geological, chemical, physical and biological relationships. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU, UC.

OCEAN 20  
Coastal Environmental Monitoring; Field Studies in Oceanography  
1-3 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces the students to “at sea experience” as well as explores careers and educational needs required to enter the broad field of marine science and technology. Students will go out to sea and study shipboard operations, seawater chemistry, marine navigation using Global Positioning Systems (GPS) and hand-held compasses, and marine ecology and plankton.  
Transfer Credit: Transfers to CSU.

PHILOSOPHY  
Human Arts and Social Sciences Division  
Nancy A. Brown, Division Dean  
Division Office, Room 420  
Claudia Close, Program Chair, (831) 479-6141  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6297 or (831) 479-6348 for more information  
http://www.cabrillo.edu/programs

Information for Philosophy Majors

Philosophy is concerned with our most fundamental assumptions about human experience. The study of philosophy involves such questions as: What can we know and how do we know it? What criteria should we use to decide whether an action is right or wrong? What makes human life worthwhile? Philosophy is also concerned with the way in which we answer these questions, i.e. with the construction and evaluation of arguments.

Career opportunities: A student with an interest in philosophy would ordinarily transfer to a four-year college or university in order to obtain a Bachelor's Degree. Such an education would prepare him or her for graduate work in the subject or for certain business and professional schools where a liberal education is required. One of the most noteworthy of these is law, since the philosopher's training in general argument analysis facilitates consideration of the special kinds of legal argumentation. A person who is interested in teaching philosophy must obtain a Master's Degree to be employed by a community college, or a Ph.D. in order to teach at the university level.

MODEL PROGRAM FOR PHILOSOPHY

The following model program fulfills requirements for the A.A. Degree in Philosophy at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

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<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>PHILO 4</td>
<td>Introduction to Philosophy</td>
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<tr>
<td>PHILO 10/10H</td>
<td>Ethics</td>
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<tr>
<td>PHILO 12</td>
<td>Introduction to Logic</td>
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OR

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<tr>
<th>Course</th>
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<tr>
<td>PHILO 6*</td>
<td>History of Philosophy: Ancient and Medieval</td>
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<tr>
<td>PHILO 7*</td>
<td>History of Philosophy: Modern</td>
</tr>
<tr>
<td>PHILO 10/10H</td>
<td>Ethics</td>
</tr>
<tr>
<td>PHILO 12</td>
<td>Introduction to Logic</td>
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</table>

Approved Philosophy Electives for the A.A. Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>PHILO 4</td>
<td>Introduction to Philosophy</td>
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<tr>
<td>PHILO 6</td>
<td>History of Philosophy: Ancient and Medieval</td>
</tr>
<tr>
<td>PHILO 7</td>
<td>History of Philosophy: Modern</td>
</tr>
<tr>
<td>PHILO 8</td>
<td>Philosophy of Religion</td>
</tr>
<tr>
<td>PHILO 9</td>
<td>Philosophy of Mind</td>
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<tr>
<td>PHILO 14</td>
<td>Non-Western Philosophical Traditions</td>
</tr>
<tr>
<td>PHILO 15</td>
<td>Patterns in Comparative Religions</td>
</tr>
<tr>
<td>PHILO 16</td>
<td>Contemporary Moral Issues</td>
</tr>
<tr>
<td>PHILO 39A-Z</td>
<td>Philosophical Studies</td>
</tr>
<tr>
<td>PHILO 49</td>
<td>Introduction to Critical Thinking</td>
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</tbody>
</table>
Associate in Arts Degree in Philosophy:

General Education ......................................... 30
Philosophy Core Courses ................................. 9-12
Approved Electives ........................................ 9-12
Other Electives (any course numbered 1-199) .......... 9
Total for A.A. Degree in Philosophy .......................... 60

Philosophy Courses

PHILO 4
Introduction to Philosophy
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduction to major philosophical problems including questions regarding the nature of reality, the possibility of knowledge, and the nature of self, with emphasis on politics and ethics.
Transfer Credit: Transfers to CSU, UC.

PHILO 6
History of Philosophy: Ancient and Medieval
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A survey of ancient and medieval European philosophical thought from the pre-Socratics through such medieval philosophers as Anselm, Abelard, and St. Thomas.
Transfer Credit: Transfers to CSU, UC.

PHILO 7
History of Philosophy: Modern
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A survey of philosophical thought, including the Renaissance and modern periods.
Transfer Credit: Transfers to CSU, UC.

PHILO 8
Philosophy of Religion
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reflective examination and analysis of the meanings and beliefs involved in religion and religious experience. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

PHILO 9
Philosophy of Mind
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Philosophically analyzes mind/body and personal identity issues, including treatments of artificial intelligence, intentionality, and free will vs. determinism.
Transfer Credit: Transfers to CSU, UC.

PHILO 10
Ethics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Problems of good and evil, various systems of ethics. Human conduct in social, economic and political activities examined.
Transfer Credit: Transfers to CSU, UC.

PHILO 10H
Honors Ethics
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Examines problems of good, evil, and various systems of ethics including human conduct in social, economic, and political activities. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU, UC.

PHILO 12
Introduction to Logic
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An introductory course in symbolic logic including the formalization of ordinary language arguments and tests of deductive validity.
Transfer Credit: Transfers to CSU, UC.

PHILO 14
Non-Western Philosophical Traditions
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introductory survey of non-western philosophies--especially India, China, Japan--and their relevance to contemporary western experience.
Transfer Credit: Transfers to CSU, UC.

PHILO 15
Patterns in Comparative Religions
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Philosophical review and comparison of contemporary religions including both eastern traditions such as Buddhism, Hinduism and Taoism and western traditions such as Judaism, Islam and Christianity. Optional field trips may be offered.
Transfer Credit: Transfers to CSU, UC.

PHILO 16
Contemporary Moral Issues
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Philosophical analysis of issues in the areas of social, environmental, technological, biomedical and business ethics. May include topics such as cloning and genetic manipulation, intellectual property rights, famine and affluence, deep ecology, war and violence, gender roles and animal rights.
Transfer Credit: Transfers to CSU, UC.
PHILO 39A–Z

Philosophy Studies
1-3 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An intensive study of a particular philosophical concept, issue, movement, or philosopher. Course content will vary with each offering. Critical, analytical written work is the primary means of evaluating student performance in this course.

Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

PHILO 49

Introduction to Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.

Presents techniques for analyzing arguments used in political rhetoric, advertisements, editorials, scientific claims and social commentary. Develops the ability to create and refine written arguments. Topics include inductive and deductive arguments, the validity and consistency of arguments, the relationship between evidence and conclusions, persuasive writing strategies, the concerns of style and audience, and impediments to good reasoning. Satisfies the IGETC Critical Thinking requirement.

Transfer Credit: Transfers to CSU, UC.

PHYSICAL EDUCATION

Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Onnie Killefer, Program Chair, (831) 479-6581
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Information for Physical Education Majors

Physical Education is the academic discipline concerned with the art and science of human movement. Physical Education may also be listed as Kinesiology or Human Performance at some campuses. Bachelors and graduate degrees with emphasis in adaptives, athletic training, dance, movement sciences, sports management, teaching and coaching offer numerous career opportunities in public and private sectors.

MODELS FOR PHYSICAL EDUCATION

The following model program fulfills requirements for the A.A. Degree in Physical Education at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

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<tr>
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<tr>
<td>BIO 5</td>
<td>Human Physiology</td>
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<tr>
<td>PE 9</td>
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<td>PE Activity Classes</td>
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Approved Electives

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<thead>
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<tr>
<td>PE 3</td>
<td>Introduction to College and Intercollegiate Athletics</td>
<td>3</td>
</tr>
<tr>
<td>PE 7</td>
<td>Human Performance and Sports Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>PE 8</td>
<td>Weight Management</td>
<td>2</td>
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<tr>
<td>PE 10</td>
<td>Introduction to Athletic Training</td>
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<tr>
<td>PE 11</td>
<td>Introduction to Disabilities and Adaptive Physical Education</td>
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<tr>
<td>PE 12A</td>
<td>First Aid: Responding to Emergencies</td>
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<td>PE 12B</td>
<td>Community Cardio Pulmonary Resuscitation</td>
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<tr>
<td>PE 14</td>
<td>Advanced First Aid: Emergency Response</td>
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<tr>
<td>PE 46</td>
<td>Core Performance-Be Your Own Trainer</td>
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<td>PE 55G</td>
<td>Yoga-Gyrokinesis®</td>
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Recommended from Related Disciplines

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<tbody>
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<td>CHEM 30A</td>
<td>Inorganic Chemistry for Health Occupation</td>
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<tr>
<td>MATH</td>
<td>Any Area CSU B4 or IGETC Area 2 course</td>
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<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
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<td>CAHM 20</td>
<td>Nutrition</td>
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Associate in Arts Degree in Physical Education

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<th>General Education</th>
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Total for A.A. Degree in Physical Education

<table>
<thead>
<tr>
<th>Total</th>
<th>Units</th>
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<tr>
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Physical Education Courses

PE 3

Introduction to College and Intercollegiate Athletics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces college requirements, college services, community college eligibility requirements, and NCAA/NAIA transfer regulations for intercollegiate student athletes. Study skills instruction and academic planning included.

Transfer Credit: Transfers to CSU.
**PE 7**  
**Human Performance and Sports Nutrition**  
2 units; 2 hours Lecture  
Repeatability: May be taken 2 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explores the science of sports nutrition and how to apply nutrition principles to benefit athletic performance. Diet, hydration, and supplementation needs before, during, and after exercise are evaluated for their effect on optimal performance. This course is designed for both the recreational and competitive athlete.  
*Transfer Credit: Transfers to CSU, UC.*

**PE 8**  
**Weight Management**  
2 units; 1 hour Lecture, 2 hours Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides education, instruction, and support in weight management that uses an integrated approach among the disciplines of exercise science, nutrition, and behavioral modification.  
*Transfer Credit: Transfers to CSU.*

**PE 9**  
**Introduction to Physical Education**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Presents an overview of physical education as a discipline for students interested in careers in PE or related fields. Topics include career options, professional responsibilities, transfer, current issues, aims, and objectives of physical education.  
*Transfer Credit: Transfers to CSU, UC.*

**PE 10**  
**Introduction to Athletic Training**  
3 units; 3 hours Lecture  
Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100.  
Introduces the profession of athletic training including recognition, initial care, rehabilitation, and taping techniques of common athletic injuries.  
*Transfer Credit: Transfers to CSU, UC.*

**PE 11**  
**Introduction to Disabilities and Adaptive Physical Education**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides practical experience and formal training for students who are interested in pursuing a career in physical education, adaptive physical education, therapeutic recreation, or other areas that involve working with the physically limited. Includes teaching techniques, factors limiting motor performance and information regarding various disabilities.  
*Transfer Credit: Transfers to CSU.*

**PE 11L**  
**Introduction to Disabilities & Adaptive PE: Field Work**  
1-2 units; 2 hours Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Apply skills and knowledge after completion of or concurrent enrollment in PE 11 to continue practice as therapeutic aide.  
*Transfer Credit: Transfers to CSU.*

**PE 12A**  
**First Aid: Responding to Emergencies**  
3 units; 3 hours Lecture  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides certification in American Red Cross "Responding to Emergencies and Community CPR" for students who want training in accident prevention and treatment of the injured. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU; UC, with limits: PE 12A & B combined- maximum credit, 1 course.*

**PE 12B**  
**Community Cardio Pulmonary Resuscitation**  
0.5 unit; 0.5 hour Lecture  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides certification in American Red Cross Community CPR. Provides training care for the adult, child, and infant victim.  
*Transfer Credit: Transfers to CSU; UC, with limits: PE 12A & B-- maximum credit-1 course.*

**PE 14**  
**Advanced First Aid: Emergency Response**  
4 units; 4 hours Lecture  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides American Red Cross certification in Emergency Response and CPR for the Professional Rescuer. Provides the knowledge and skills in emergency care needed by peace officers, firefighters, emergency medical technicians, and other special interest groups. Meets the CPR prerequisite for admission to the EMT program through Emergency Medical Services. Includes mandated airway management skills module. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU.*
PE 20
Swimming
0.5-3 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Emphasizes development of aquatic skills and conditioning appropriate for the non-swimmer, beginning swimmer, or intermediate swimmer. Instruction will include water adaptation, basic strokes, watermanship skills, deep water skills, competitive strokes and techniques, and conditioning activities.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 21
Swim Fitness
0.5-3 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Improves physical fitness using competitive swim strokes. Stroke technique, competitive methods, aerobic and anaerobic swim sets are included. Workouts vary to accommodate different ability levels.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 21AR
Water Aerobics
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides cardiovascular conditioning, muscle strengthening, and flexibility through non-swimming water exercise emphasizing low impact on joints. Can be used for rehabilitation and as a cross-training activity for athletes.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 23
Water Polo
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction on the individual offensive and defensive skills and team strategies of water polo.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 24
Lifeguard Training
2 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in the development of basic golf swing techniques including chipping, bunker shots, uneven lie positions, swing correction techniques, putting, elements of golf course management, rules, and golf etiquette.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 31
Golf
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in the development of stroke production, footwork, strategy, rules, and etiquette for singles and doubles play.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 32B
Golf Course Play
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in men’s and women’s artistic gymnastics including exercises on the balance beam, parallel bars, vault, floor, rings, horizontal bar, and pommel horse.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 33
Gymnastics
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in the development of stroke production, footwork, strategy, rules, and etiquette for singles and doubles play.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 36
Tennis
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in the development of stroke production, footwork, strategy, rules, and etiquette for singles and doubles play.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.
PE 37  
**Hiking**
0.5-2 units; 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces concepts of safe hiking using the Santa Cruz county parks, trails, and surrounding areas and includes local history, flora and fauna, emergency procedures, safety rules, health issues, and environmental considerations. Hikes will be fun and challenging, averaging 5-8 miles on moderate to steep terrain and require a 20-minute per mile pace.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 39  
**Beginning Self-Defense for Women**
2 units; 1 hour Lecture, 2 hours Laboratory  
Repeatability: May be taken 4 times.  
Provides basic self defense skills and psychological techniques for confronting threatening situations. Includes information about the nature and incidence of assaults.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 40  
**Baseball**
0.5-2 units; 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides instruction in individual offensive and defensive skills and team strategies of baseball.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 41  
**Basketball**
0.5-2 units; 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides instruction in individual offensive and defensive skills and team strategies of basketball.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 42  
**Football**
0.5-2 units; 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides instruction in the individual offensive and defensive skills and team strategies of football.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 42R  
**Rugby**
0.5-2 units; 1 hour Laboratory  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides instruction in the offensive and defensive skills and strategies of rugby.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity course: maximum credit-4 units

PE 43  
**Soccer**
0.5-2 units; 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides instruction in individual and team soccer skills and strategies.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 43F  
**Indoor Soccer–Futsal**
0.5-2 units; 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides instruction in individual and team indoor soccer/futsal skills and strategies.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 44  
**Softball**
0.5-2 units; 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides instruction in offensive and defensive skills and team strategies of softball.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 45  
**Volleyball**
0.5-2 units; 1 hour Activity  
Repeatability: May be taken 4 times.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides instruction on the individual and team skills and strategies of volleyball.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.
PE 46
Core Performance–Be Your Own Trainer
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides education and instruction in an approach to fitness using functional and core training.
Transfer Credit: Transfers to CSU.

PE 46F
Fit Camp
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in functional fitness using body weight and light weight equipment to challenge each individual in a supportive environment.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 47
Sports Conditioning
0.5-3 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides a setting to improve cardiovascular fitness, muscular strength, flexibility, and specific sport movement patterns to minimize injury potential during competitive seasons for male and female intercollegiate athletes.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 48
Total Fitness
0.5-1.5 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides cardiovascular conditioning, strength training, flexibility exercises, and instruction in concepts relative to physical fitness.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 49
Ultimate Frisbee
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in throwing, catching, and passing skills of ultimate frisbee and their application to team play. Class covers offensive and defensive patterns and team strategies.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 51C
Aerobic Fitness-Low Impact
0.5-3 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides cardiovascular conditioning, flexibility, strength, and endurance training performed to music. Special attention given to proper motion, placement of feet, lower back positions. Low impact with step option available, but not required for participation.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 53
Weight Training
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction on the biomechanics of strength training, muscle trainability, and training principles using both machines and free weights.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 54
Power Training
0.5-3 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: PE 53 or equivalent experience; Eligibility for ENGL 100 and READ 100.
Provides instruction on the biomechanics of power training and neuromuscular adaptation.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 55
Hatha Yoga
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction on asanas (postures) with attention to breath awareness and detail of postural alignment of the body to develop strength, endurance, flexibility, balance, and to reduce stress. Develops awareness and consciousness in the physical body to establish the mind/body connection.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.
PE 55G
Gyrokinesis Movement Yoga
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Re-educates and invigorates the body to move with fluidity, relaxation, and power by rhythmic exercise.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 55SR
Yoga and Stress Reduction
0.5-2 units; 1 hour Activity
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores the eight limbs of yoga as a method for reducing stress, improving well-being, and cultivating the connection of mind and body. Introduces asanas (physical postures), meditation, pranayama (breathing techniques), and the yamas and niyamas that guide healthy and ethical living.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 56CK
Chi Kung
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the practice and principles of Chi Kung and related energy work. Provides a method of daily exercise that can improve balance, tone muscles, increase flexibility, and promote relaxation through the practice of slow fluid movements.
Transfer Credit: Transfers to CSU; UC, with conditions: Any or all PE Activity courses combined: maximum credit, 4 units.

PE 56TC
Tai Chi for Health and Wellbeing
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in the fundamental principals and movements of Tai Chi. This form and warm-ups contain powerful exercises to enhance energy and to improve mobility. Emphasis given to the development of balance and flow through the discipline of slow fluid movements, mindful breathing, and awareness of mind/body balance.
Transfer Credit: Transfers to CSU; UC, with conditions: Any or all PE Activity courses combined: maximum credit, 4 units.

PE 59A–Z
Special Topics in Physical Education
0.5-3 units; 0.5 hour Lecture, 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in selected physical education topics and areas of special interest including but not limited to such topics as Women’s Self Defense—Weapons, Yoga, Sports Officiating, and current trends in fitness.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

PE 108
Fitness Over Fifty
0.5-2 units; 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides education, instruction, and support in creating sustainable fitness programs for an aging population (50+) that are appropriate and relevant to daily living activities.

PHYSICS
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Carlos Figueroa, Program Chair, (831) 479-6520
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Information for Physics Majors
Physics is the study of our natural surroundings, from the tiniest elementary particle to the entire universe. Physics provides a broad range of knowledge and powerful skills which are useful in practically every discipline. The program at Cabrillo emphasizes topics that affect our everyday lives: forces, motion, gravity, waves, sound, electricity, magnetism, light, and heat. The excitement of atoms, nuclei, relativity, and the cosmos is also included.
A physics major degree generally transfers to a four-year institution to complete a bachelor's degree. Physics graduates at the bachelor's level are qualified for a variety of technical positions with government or industry, and they are also well prepared to enter a graduate program in any other science or in engineering. Physics majors are welcomed into professional programs such as law, business, or medicine. Teaching at the high school or two-year college level is an option if a master's degree is obtained. A physicist generally obtains the Ph.D. Degree, which may lead to experimental or theoretical research and/or teaching at the university level or basic research in government or industry.

Nearly every four-year college and university offers a physics major. Requirements vary from campus to campus. See a counselor and consult catalogs for specific information.

High School Preparation: Physics, chemistry, four years of college preparatory mathematics. Cabrillo offers courses that are equivalent to this preparation. The major will require more than two years at the community college level if high school preparation is not complete.

MODEL PROGRAM FOR PHYSICS

The following model program fulfills requirements for the A.S./A.A. Degree in physics at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Courses</th>
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<td>CS 11</td>
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<td>CS 19</td>
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Associate in Science Degree in Physics

General Education .................. 21
Core Courses ......................... 36
Approved Electives .................. 3
Total for A.S. Degree in Physics 60

Associate in Arts Degree in Physics

General Education .................. 30
Core Courses ......................... 30
Total for A.A. Degree in Physics 60

Physics Courses

Note: UC will not grant credit for PHYS 10, 10L, 11, or 12 if taken after PHYS 2A or 4A; if PHYS 10, 10L, 11, and 12 are combined, only one course will transfer to UC. PHYS 2AB combined with 4ABC maximum credit, one series.

PHYS 2A
General Physics

4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 4 or equivalent knowledge.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers mechanics, heat and sound primarily for life science students. Spring semester only.
Transfer Credit: Transfers to CSU, UC.

PHYS 2B
General Physics

4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: PHYS 2A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers electromagnetism, optics, relativity, and the atom primarily for life science students. Spring semester only.
Transfer Credit: Transfers to CSU, UC.

PHYS 4A
Physics for Scientists and Engineers

5 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: MATH 5A, MATH 5B or concurrent enrollment; PHYS 11 or high school physics with a minimum grade of B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers mechanics, fluids, and waves for scientists and engineers. Fall semester only.
Transfer Credit: Transfers to CSU, UC.

PHYS 4B
Physics for Scientists and Engineers

5 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: PHYS 4A; MATH 5C or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers electricity and magnetism for scientists and engineers. Fall semester only.
Transfer Credit: Transfers to CSU, UC.

PHYS 4C
Physics for Scientists and Engineers

5 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: PHYS 4A; MATH 5C or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers thermodynamics, optics, and introduction to quantum physics for scientists and engineers. Spring semester only.
Transfer Credit: Transfers to CSU, UC.
PHYS 4D
Modern Physics
3 units; 3 hours Lecture
Prerequisite: PHYS 4C.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers relativity, quantum mechanics and nuclear physics for scientists and engineers. Fall semester only.
Transfer Credit: Transfers to CSU, UC.

PHYS 10
Introduction to Physics
3 units; 3 hours Lecture
Prerequisite: MATH 154.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers conceptual topics in physics for the non-science major (PHYS 10L lab optional).
Transfer Credit: Transfers to CSU; UC, with limits: PHYS 10, 10L, 11 & 12 combined: maximum credit–4 units. No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A

PHYS 10L
Introduction to Physics Lab
1 unit; 3 hours Laboratory
Prerequisite: PHYS 10 or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a hands-on exploration of topics in physics for the non-science major.
Transfer Credit: Transfers to CSU; UC, with limits: PHYS 10, 10L, 11 & 12 combined: maximum credit–4 units. No credit for PHYS 10 /10L, 11 or 12 if taken after 2A or 4A

PHYS 11
Elementary Physics
4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 4 or equivalent knowledge or Trigonometry.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents an introduction to motion, force, heat, electromagnetism, light, sound, atoms and nuclei designed primarily to prepare students for the PHYS 4 sequence.
Transfer Credit: Transfers to CSU; UC, with limits: PHYS 10, 10L, 11 & 12 combined: maximum credit–4 units. No credit for PHYS 10 /10L, 11 or 12 if taken after 2A or 4A.

PHYS 12
Introduction to Modern Physics
3 units; 3 hours Lecture
Prerequisite: MATH 154.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers conceptual topics in modern physics for the non-science major. Explores the nature and meaning of special and general relativity, quantum physics, the atom and nucleus, and elementary particles.
Transfer Credit: Transfers to CSU; UC, with limits: PHYS 10, 10L, 11 & 12 combined: maximum credit–4 units. No credit for PHYS 10 /10L, 11 or 12 if taken after 2A or 4A.

POLITICAL SCIENCE
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Political Science Majors
Political Science is the systematic study of politics, political institutions and governmental processes by the application of scientific methods of analysis and critical examination. Political science is concerned with the objectives and ends of politics and the way in which political society should be organized in order to realize those objectives and ends. Courses in political science enable students to study and understand how political and governmental institutions make and implement decisions and the effects those decisions have on individual, group, and societal behavior.

A political science major generally transfers to a four-year institution to complete a B.A. Degree. Political science graduates with B.A. Degrees are qualified for a variety of positions in government and non-governmental institutions; graduates are prepared to enter graduate studies in various disciplines, including political science, law, journalism and business. Teaching at the community college level is an option providing that an M.A. and/or a Ph.D. Degree is obtained. Possession of the Ph.D. could lead to research and teaching at the university level.

MODEL PROGRAM FOR POLITICAL SCIENCE
The following model program fulfills requirements for an A.A. Degree in Political Science at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institutions.

Core Courses
PS 1/1H Introduction to Government ............... 3
PS 2 Comparative Government ................. 3
PS 3 International Relations .................. 3
PS 4 Political Freedom ....................... 3
PS 5 American Political Thought ............... 3

Approved Electives
ECON 1A Introduction to Macroeconomics ......... 3
ECON 1B Introduction to Microeconomics ...... 3
HIST 2A World History to 1500 .................. 3
HIST 2B World History: 1500 to Present ........ 3
HIST 4A Survey of Western Civilization to 1648 .. 3
HIST 4B Survey of Western Civilization-1648 to Late 20th Century .. 3
HIST 16C History of Mexico .................. 3
HIST 19A History of Asia: South and Southeast Asian History ............... 3
HIST 19B Introduction to Chinese History ........ 3
HIST 19C Introduction to Japanese History ...... 3
Associate in Arts Degree in Political Science

General Education .................................................. 30
Political Science Core Courses ................................ 15
Approved Electives .................................................. 6-9
Other Electives (any course numbered 1-199) ............... 6-9
Total for A.A. Degree in Political Science ..................... 60

Political Science Courses

PS 1
Introduction to Government
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys the origins and development of the U.S. political system. Topics include basic concepts from political philosophy, constitutional law, institutions of the federal government (Congress, Presidency, Courts) political parties and elections, federalism, public opinion, the media, interest groups, civil liberties and rights, and California politics. Contemporary issues will be presented from a variety of viewpoints. (Satisfies the state requirement for American institutions and California government.) Critical analytical written work is the primary means of evaluating student performance in this course. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

PS 1H
Honors Introduction to Government
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Surveys the origins and development of the U.S. political system. Topics include basic concepts from political philosophy, constitutional law, institutions of the federal government (Congress, Presidency, Courts) political parties and elections, federalism, public opinion, the media, interest groups, civil liberties and rights, the public policy process, and California politics. Contemporary issues will be presented from a variety of viewpoints. (Satisfies the state requirement for American institutions and California government.) Critical analytical written work is the primary means of evaluating student performance in this course. Highlights student research, critical writing and oral reporting, both individually and in group projects.
Transfer Credit: Transfers to CSU, UC.

PS 2
Comparative Government
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines and compares a diverse selection of the world’s political and economic systems. The specific selection of country case studies varies, and is selected from Great Britain, Japan, Germany, Russia, China, India, Iraq, Iran, South Africa, and Mexico. Each country case study will focus on the common themes of political history, key institutions, political cultures, political participation, major contemporary political, economic, and social issues, and the impacts of global forces on these political and economic systems.
Transfer Credit: Transfers to CSU, UC.

PS 3
International Relations
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the political and economic structures and the main actors (states, intergovernmental, and nongovernmental) of the contemporary international system. Topics include major contending perspectives for understanding international relations and an exploration of selected issues and cases in international relations.
Transfer Credit: Transfers to CSU, UC.

PS 4
Political Freedom
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an intensive analysis of political freedom from various philosophical, historical, and cultural perspectives. Covers a breadth of political thinking from the Western tradition.
Transfer Credit: Transfers to CSU, UC.

PS 5
American Political Thought
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Investigates the influences of political theory on the development of the political system of the United States. Emphasis is placed on concepts such as: democracy, republicanism, liberty and political autonomy as well as how the constitution gives authority to the government while limiting its powers. Readings range from the ancient Greeks to early modern and contemporary writings. Topics include basic concepts from political philosophy; the forms and functions of the institutions of the federal government, and California state politics. (Satisfies the state requirements for American institutions and California government.)
Transfer Credit: Transfers to CSU, UC.

PS 39A-Z
Special Topics in Political Science
1-3 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies particular political issues, movements, and concepts. Course content will vary with each offering.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.
Information for Psychology Majors

Psychology is the study of our thinking, feeling and behaving. It is the study of human beings, by far the most complex phenomenon on the planet. Cabrillo College offers a diverse program with several goals: 1) to expose students to the variety of subfields in psychology; 2) to engender knowledge of and appreciation for the spirit and nature of scientific inquiry; 3) to facilitate insight into oneself and increase knowledge of and sensitivity to others; and 4) to introduce students to the basic body of knowledge, thus preparing them for further study in psychology.

Because the field of psychology is broad and diverse, psychologists can and do work in a variety of settings. Most psychologists have a Master's degree or a Ph.D. This usually requires two to six years of study after a Bachelor's Degree.

Psychologists may teach, conduct research, perform psychological testing, or do consultation in a variety of settings including hospitals, social service agencies, businesses, industries, colleges, and universities. Applied psychology integrates theory, research, and practice to help people with close relationships, with decision-making, with death and dying, and with other issues. Applied psychology can also produce superior job performance in the human services, education, and many other fields.

MODEL PROGRAM FOR PSYCHOLOGY

The following model program fulfills requirements for an A.A. Degree in Psychology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
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<tr>
<th>Course</th>
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Choose three of the following courses:

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<th>Course</th>
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<tbody>
<tr>
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<td>PSYCH 4</td>
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<td>PSYCH 8</td>
<td>3</td>
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<tr>
<td>PSYCH 12</td>
<td>3</td>
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<tr>
<td>PSYCH 26</td>
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<tr>
<td>PSYCH 31</td>
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Approved Electives

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<td>PSYCH 33</td>
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<tr>
<td>PSYCH 37ABC</td>
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<tr>
<td>PSYCH 39ABC</td>
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</table>

Prospective Psychology majors are encouraged to consult a Psychology instructor regarding recommended elective courses.

Associate in Arts Degree in Psychology

| General Education | 30   |
| Psychology Core Courses | 12-14 |
| Approved Electives | 12   |
| Other Electives (any course numbered 1-199) | 4-6   |

Total for A.A. Degree in Psychology 60

Psychology Courses

PSYCH 1
General Psychology
3 units; 3 hours Lecture
Prerequisite: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Scientific study of behavior and mental processes, which leads to better understanding of ourselves and other people. Covers basic processes such as perceiving, learning, and remembering. Also introduces theories of personality, abnormal behavior, and child development. Many examples of how psychology can be applied in everyday life.
Transfer Credit: Transfers to CSU, UC.

PSYCH 2
Research Methods in Psychology
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 12 or equivalent; PSYCH 1.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Scientific methods of investigating behavior and mental processes. Includes topics such as developing a research idea, designing experiments and surveys, doing literature searches, interpreting results, communicating findings to others, and learning the scientific approach to knowledge.
Transfer Credit: Transfers to CSU, UC.

PSYCH 4
Introduction to Biological Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
An advanced consideration of the biological basis of behavior. Emphasis is placed on understanding the structure and function of neurons and the nervous system. Topics include how the brain enables sensation, perception, motivation, emotion, learning, and memory; as well as the effects of various drugs. Also examines the bases of brain malfunction and mental disorders, such as schizophrenia and depression.
Transfer Credit: Transfers to CSU, UC.
**PSYCH 6**  
**Introduction to Social Psychology**  
3 units; 3 hours Lecture  
Prerequisite: PSYCH 1.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Science of how individuals are influenced by other people, and how that knowledge can help us to deal with social problems. Includes topics such as conformity, prejudice, liking, attitude change, aggression, helping, and group behavior.  
*Transfer Credit*: Transfers to CSU, UC.

**PSYCH 8**  
**Introduction to Developmental Psychology**  
3 units; 3 hours Lecture  
Prerequisite: PSYCH 1.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Science of human development with emphasis on infancy, childhood, and adolescence. Topics include prenatal development, cognitive and emotional development, attachment, aggression, self-concept and gender development, multicultural issues, and theories of how we change.  
*Transfer Credit*: Transfers to CSU; UC, with limits: PSYCH 8 combined with ECE 31, 32 & 33-maximum credit- 1 course.

**PSYCH 12**  
**Introduction to Cognitive Psychology**  
3 units; 3 hours Lecture  
Prerequisite: PSYCH 1.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Scientific study of processing information about ourselves and the world around us. Includes topics such as perceiving, remembering, reasoning, problem solving, and decision-making. Examples of how cognitive psychology can be applied to practical problems.  
*Transfer Credit*: Transfers to CSU, UC.

**PSYCH 20A-Z**  
**Current Topics in Psychology**  
3 units; 3 hours Lecture  
Repeatability: May be taken 4 times.  
Prerequisite: PSYCH 1.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Study of topics of current importance in one of the major fields of psychology. The particular areas of emphasis will be listed in the Schedule of Classes.  
*Transfer Credit*: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

**PSYCH 26**  
**Introduction to Personality Psychology**  
3 units; 3 hours Lecture  
Prerequisite: PSYCH 1.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Description and explanation of individual differences. Provides an overview of major personality theories from Freud to the modern day, and an introduction to contemporary personality research and assessment.  
*Transfer Credit*: Transfers to CSU, UC.

**PSYCH 31**  
**Introduction to Abnormal Psychology**  
3 units; 3 hours Lecture  
Prerequisite: PSYCH 1.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Scientific study of abnormal behavior. Includes explanations of anxiety disorders, depression, schizophrenia and other disorders; and some treatment issues.  
*Transfer Credit*: Transfers to CSU, UC.

**PSYCH 33**  
**Personal and Social Adjustment**  
3 units; 3 hours Lecture  
Prerequisite: PSYCH 1.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Designed to facilitate insight into the self and to explore techniques for personal growth and healthy relationships. Through lectures, growth exercises, and small group interactions, the course makes use of various theories of personality and well-being in an effort to help participants to better understand themselves, improve communication with others, and maintain healthy patterns of behavior.  
*Transfer Credit*: Transfers to CSU, UC.

**PSYCH 35AB**  
**Death and Dying**  
2 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Comprehensive study of dying, death, and bereavement through contemporary, historical, cross-cultural, psychological, and interdisciplinary perspectives. Explores the way in which individual experience and culture influence grief, care of the dying, funeral rites, ethical decision-making in medicine, and the psychosocial understanding of death.  
*Transfer Credit*: Transfers to CSU; UC, with conditions: CSU: Students must take 35ABC (3 units) to receive CSU GE credit. UC: Transfer credit granted if taken for 3 units(ABC).
PSYCH 35ABC
Death and Dying
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Comprehensive study of dying, death, and bereavement through contemporary, historical, cross-cultural, psychological, and interdisciplinary perspectives. Explores the way in which individual experience and culture influence grief, care of the dying, funeral rites, ethical decision-making in medicine, and the psychosocial understanding of death.
Transfer Credit: Transfers to CSU; UC, with conditions: CSU: Students must take 35ABC (3 units) to receive CSU GE credit. UC: transfer credit granted if taken for 3 units(ABC).

PSYCH 35C
Death and Dying
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

In-depth exploration of attitudes toward death, dying, and bereavement including psychosocial development, life-threatening illness, and survivor issues.
Transfer Credit: Transfers to CSU; UC, with conditions: CSU: Students must take 35ABC (3 units) to receive CSU GE credit. UC: transfer credit granted if taken for 3 units(ABC).

PSYCH 37AB
Values and Decision Making
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines the theory and process of valuing, decision making, and the psychology of critical thinking as applied in both personal and professional contexts, at home and in the workplace. Focuses on how values influence decision making and on ways to identify various alternatives and evaluate the potential consequences of each choice.
Transfer Credit: Transfers to CSU: Students must take 37ABC (3 units) to receive GE credit at CSU.

PSYCH 39AB
Relationships: Marriage and Family
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Study the function and meaning of relationships from both an academic and practical perspective with emphasis on the psychology of intimate relations. Historical, cultural, and economic perspectives are applied to an exploration of the myths and realities of relationships involving communication, power, roles, gender, sexuality, parenting, and the satisfaction of psychological and social needs.
Transfer Credit: Transfers to CSU; UC, with conditions: CSU: Students must take 39ABC (3 units) to receive CSU GE credit. UC: transfer credit granted if taken for 3 units(ABC).

PSYCH 39ABC
Relationships: Marriage and Family
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Study the function and meaning of relationships from both an academic and practical perspective with emphasis on the psychology of intimate relations. Historical, cultural, and economic perspectives are applied to an exploration of the myths and realities of relationships involving communication, power, roles, gender, sexuality, parenting, and the satisfaction of psychological and social needs.
Transfer Credit: Transfers to CSU; UC, with conditions: CSU: Students must take 39ABC (3 units) to receive CSU GE credit. UC: transfer credit granted if taken for 3 units(ABC).

PSYCH 39C
Relationships: Marriage and Family
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on relationship communication and conflict resolution patterns by examining how successful communications work and how speakers accomplish their goals in interactions. Highlights distinctions based on gender and culture.
Transfer Credit: Transfers to CSU; UC, with conditions: CSU: Students must take 39ABC (3 units) to receive CSU GE credit. UC: transfer credit granted if taken for 3 units(ABC).

PSYCH 40
Field Experience in Psychology
3 units; 3 hours Laboratory (Field Experience)
Prerequisite: PSYCH 1.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.

Provides an opportunity to work with children, the elderly, or people with disabilities and to evaluate the current work practices in a field setting. Can help students gain insight into themselves and to clarify their vocational interests.
Transfer Credit: Transfers to CSU, UC.
### Information for Criminal Justice Majors

The Criminal Justice Program is designed to provide students with the basic theoretical knowledge, that will prepare them to transfer to four-year institutions in pre-law, law enforcement, or corrections. The program develops a high level of academic, personal, and professional competence demanded in a wide range of agencies.

### MODEL PROGRAM FOR CRIMINAL JUSTICE

#### LAW ENFORCEMENT OPTION

The following model program fulfills requirements for an A.A. Degree in Criminal Justice/Law Enforcement at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

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<thead>
<tr>
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</tr>
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<td>MATH 12/12H</td>
<td>Elementary Statistics</td>
</tr>
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</table>

**OR**

| BUS 9         | Business Statistics | 3 |

**Approved Electives**

| CJ 4         | Criminal Courts and Procedures | 3 |
| CJ 6         | Criminal Investigation | 3 |
| CJ 9         | Juvenile Procedures | 3 |
| CJ 12        | Contemporary Issues in the Justice System | 3 |
| CJ 41        | Narcotics Identification and Enforcement | 3 |
| *CJ 110      | Forensic Investigation | 4 |
| *CJ 111      | Self Defense for Law Enforcement | 3 |
| *CJ 155D     | Law Enforcement Skills and Knowledge Modules | 4 |

**MATH 12/12H** | Elementary Statistics | 4

**BUS 9** | Business Statistics | 3

*These courses are not transferable to four-year universities.

*If not used as a core course

### CORRECTIONS OPTION

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| CJ 12        | Contemporary Issues in the Justice System | 3 |
| CJ 41        | Narcotics Identification and Enforcement | 3 |

**MATH 12/12H** | Elementary Statistics | 4

**BUS 9** | Business Statistics | 3

*These courses are not transferable to four-year universities.

*If not used as a core course

### Associate in Arts Degree in Criminal Justice/Law Enforcement

| General Education | 30 |
| Law Enforcement Core | 19-20 |
| Approved Electives | 3-8 |
| Electives (any course numbered 1-199) | 2-8 |

**Total for the A.A. Degree in Criminal Justice/Law Enforcement** | 60

### CORRECTIONS OPTION

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**OR**

| BUS 9         | Business Statistics | 3 |

**Approved Electives**

| CJ 4         | Criminal Courts and Procedures | 3 |
| CJ 6         | Criminal Investigation | 3 |
| CJ 9         | Juvenile Procedures | 3 |
| CJ 12        | Contemporary Issues in the Justice System | 3 |
| CJ 41        | Narcotics Identification and Enforcement | 3 |

**MATH 12/12H** | Elementary Statistics | 4

**BUS 9** | Business Statistics | 3

*These courses are not transferable to four-year universities.

*If not used as a core course

### Associate in Science Degree in Criminal Justice

| General Education | 30 |
| Corrections Core  | 21-22 |
| Approved Electives | 3-8 |
| Electives (any course 1-199) | 0-6 |

**Total for A.A. Degree in Criminal Justice/Corrections** | 60

### Public Safety Occupational Programs

### Associate in Arts Degree in Criminal Justice/Law Enforcement

#### General Education

| General Education | 30 |
| Law Enforcement Core | 19-20 |
| Approved Electives | 3-8 |
| Electives (any course numbered 1-199) | 2-8 |

**Total for the A.A. Degree in Criminal Justice/Law Enforcement** | 60

### Public Safety Occupational Programs

#### Associate in Science Degree in Criminal Justice

The Criminal Justice Program is designed to provide students with basic knowledge and skills for employment in the criminal justice field. The program also offers certificated programs designed to meet the State of California training requirements for law enforcement reserve officers. In addition, the program provides continuing education for persons already employed in the justice system as peace officers, counselors, attorneys, and private security officers.

### Law Enforcement Option

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</tr>
<tr>
<td>CJ 7</td>
<td>Criminal Justice Written Communications</td>
</tr>
</tbody>
</table>
### Information for Fire Technology Majors

Today, fire service personnel are faced with a diverse and complex environment. Firefighters must be well trained to deal effectively with the fire protection problems, emergency medical care response, and hazardous materials emergencies. The Fire Technology Program at Cabrillo emphasizes basic educational skills in mathematics, chemistry, and communications, as well as fire protection curriculum designed to prepare students for careers in the fire protection field.

Careers in fire protection include public fire service, fire protection engineering, and education. Positions are available in state and federal agencies and private industry. Thousands of openings for both men and women occur each year in fire service and related fields; competition is keen, however. Most fire departments require degrees or certificates of proficiency as a prerequisite for promotion.

High School preparation: Completion of algebra, chemistry, and physics is highly recommended.

The following model program fulfills requirements for an A.A. Degree in Fire Technology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

### Core Courses

<table>
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<td>FT 3</td>
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<tr>
<td>FT 4</td>
<td>3</td>
</tr>
<tr>
<td>FT 5</td>
<td>3</td>
</tr>
</tbody>
</table>

### Approved Electives

- **FT 155D** Fire Technology Skills and Knowledge Modules: 4 units

**This course does not transfer to a four-year university**

### Associate in Arts Degree in Fire Technology

#### Core Courses

<table>
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<tr>
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<td>FT 4</td>
<td>3</td>
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<td>FT 5</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Approved Electives

- **FT 155D** Fire Technology Skills and Knowledge Modules: 4 units

**This course does not transfer to a four-year university**

### A.S. Degree in Fire Technology

#### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>FT 1</td>
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### Approved Electives

- **FT 155D** Fire Technology Skills and Knowledge Modules: 4 units

**This course does not transfer to a four-year university**
Approved Electives

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>FT 7</td>
<td>Introduction to Hazardous Materials</td>
<td>3</td>
</tr>
<tr>
<td>FT 8</td>
<td>Wildlands Fire Control</td>
<td>3</td>
</tr>
<tr>
<td>FT 9</td>
<td>Fire Investigation</td>
<td>3</td>
</tr>
<tr>
<td>FT 155D</td>
<td>Fire Technology Skills and Knowledge Modules</td>
<td>4</td>
</tr>
<tr>
<td>FT 175</td>
<td>Hazardous Materials-First</td>
<td>½</td>
</tr>
<tr>
<td>FT 176</td>
<td>Confined Space I</td>
<td>¼</td>
</tr>
<tr>
<td>FT 183</td>
<td>Emergency Medical Technician-1</td>
<td>7</td>
</tr>
<tr>
<td>FT 183L</td>
<td>Emergency Medical Technician Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>FT 188</td>
<td>Advanced EMS: Preparing for Paramedic Training</td>
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</tr>
</tbody>
</table>

Total for A.S. Degree in Fire Technology: 60 units

**FIRE SERVICE MANAGEMENT OPTION**

**General Education**
- 21 units

**Fire Technology Core Courses**
- 15 units

**Approved Electives**
- 6-24 units

**Electives (any course numbered 1-199)**
- 0-18 units

Total for A.S. Degree in Fire Technology: 60 units

**Associate in Science Degree in Fire Technology**

<table>
<thead>
<tr>
<th>Core Courses</th>
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<tbody>
<tr>
<td>FT 160</td>
<td>Fire Management I</td>
</tr>
<tr>
<td>FT 161</td>
<td>Fire Command 1A</td>
</tr>
<tr>
<td>FT 162</td>
<td>Fire Command 1B</td>
</tr>
<tr>
<td>FT 163</td>
<td>Fire Prevention 1A</td>
</tr>
<tr>
<td>FT 164</td>
<td>Fire Prevention 1B</td>
</tr>
<tr>
<td>FT 165</td>
<td>Fire Investigation 1A</td>
</tr>
<tr>
<td>FT 166</td>
<td>Fire Investigation 1B</td>
</tr>
<tr>
<td>FT 167</td>
<td>Fire Instructor 1A</td>
</tr>
<tr>
<td>FT 168</td>
<td>Fire Instructor 1B</td>
</tr>
</tbody>
</table>

**Recommended Preparation:** Eligibility for ENGL 100 and READ 100.

**Transfer Credit:** Transfers to CSU, UC.

**CJ 1**

**Introduction to Criminal Justice**
- 3 units; 3 hours Lecture
- Historical and philosophical development of criminal law in U.S.; origin and foundation of law in U.S.; principles of California criminal law; components of criminal offenses and criminal negligence; legal defense; study of specific California crimes and their elements; criminal law terminology. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU, UC.

**CJ 2**

**Criminal Law**
- 3 units; 3 hours Lecture
- Historical and philosophical development of criminal law in U.S.; origin and foundation of law in U.S.; principles of California criminal law; components of criminal offenses and criminal negligence; legal defense; study of specific California crimes and their elements; criminal law terminology. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU, UC.

**CJ 3**

**Criminal Evidence**
- 3 units; 3 hours Lecture
- Historical and philosophical development of criminal law in U.S.; origin and foundation of law in U.S.; principles of California criminal law; components of criminal offenses and criminal negligence; legal defense; study of specific California crimes and their elements; criminal law terminology. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU, UC.
CJ 4
Criminal Courts and Procedures
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Review of court systems on the state and federal levels. Procedures from incident to final disposition. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CJ 5
The Police Role in the Community
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A study of the role of the police in the community with an emphasis on ethics, discretionary decision making and community policing. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CJ 6
Criminal Investigation
4 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Fundamental investigative techniques of crime scene and follow-up investigation; the definition, categories and handling of physical evidence as well as the investigative value of various types of evidence, identification and lifting of fingerprints; interviewing, interrogation and sources of information; investigating specific crimes.
Transfer Credit: Transfers to CSU.

CJ 7
Criminal Justice Written Communications
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Methods to develop students’ abilities in note taking, interviewing, information gathering, report writing mechanics and organization, and critical evaluation. Attention will be given to a note-taking system and recording facts in a logical manner. Students will write and analyze police reports to meet the standards of the Criminal Justice System.
Transfer Credit: Transfers to CSU.

CJ 9
Juvenile Procedures
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Techniques of handling juvenile offenders and victims; prevention and repression of delinquency; diagnosis and referral; organization of community resources; juvenile law; and court procedures.
Transfer Credit: Transfers to CSU.

CJ 12
Contemporary Issues in the Justice System
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Designed to analyze issues of immediate concern to the justice system including domestic violence, gangs, drug and narcotic abuse, police review, controversial prosecutions and voter initiatives directed at the criminal justice system.
Transfer Credit: Transfers to CSU.

CJ 19
Introduction to Corrections
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Designed to provide the student with an overview of the history and trends of adult and juvenile corrections, including probation and parole. It will focus on the legal issues, specific laws, and general operation of correctional institutions. The relationship between corrections and other components of the judicial system will also be examined.
Transfer Credit: Transfers to CSU.

CJ 20
Criminal Behavior
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies how and why people become criminals and examines many types of criminal behavior, such as serial killers, street gangs, child molesters and abusers, sex offenders, and organized crime members. Examines factors often found in the background of the offender. Includes field trips to correctional institutions and guest speakers.
Transfer Credit: Transfers to CSU.

CJ 41
Narcotics Identification and Enforcement
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Basic identification of narcotics and intermediate types of narcotic investigations; includes licensed personnel, common forgeries of prescriptions, sales, search warrants, and surveillance. Reports and preparation for court. Participation in a mock trial.
Transfer Credit: Transfers to CSU.

CJ 110
Forensic Investigation
4 units; 4 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Teaches the skills necessary to recognize, preserve, document and lawfully collect evidence at a crime scene.
CJ 111
Self Defense for Law Enforcement
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops defensive skills including control holds, takedown, ground defense, weapons retention, legal and ethical use of force principles, and basic self defense concepts.

CJ 150
Career Planning for Public Safety
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Prepares public safety candidates for the testing and hiring process for entry-level public safety positions. CJ 150 and FT 150 are cross-listed courses. Students may enroll in either course for credit, but not both.

CJ 155D
Law Enforcement Skills and Knowledge Modules
0.25-10 units; 0.75 hour Laboratory
Repeatability: May be repeated.
Prerequisite: Successful completion of a California P.O.S.T. Cert. Basic Acad..
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Aspects of law enforcement education and training. Each module course is 8.5 hours and may be combined for variable units. Course is certified POST Plan IV. May be taken credit/no credit only. 3 units earned count toward the associate degree for Criminal Justice. Open entry/open exit.

CJ 170A
Law Enforcement Training–PC 832 Laws of Arrest
2.5 units; 2.5 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces basic law enforcement techniques to the prospective student, covers the powers of arrest for certification by the state under P.C. 832. This is Part 1 of Module III Training, P.C. 832 Laws of Arrest.

CJ 170B
Law Enforcement Training–P.C. 832 Firearms
1.5 units; 1.5 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: CJ 170A Satisfactory completion of or equivalent; Department of Justice written certification, stating that a student has no criminal history that would disqualify him/her from using a firearm, is required prior to the start of class. (CA P.C. 13511.5).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Trains students in the use of firearms to meet the State of California P.O.S.T. requirements for Part 1 of Level III Module, PC 832 Firearms.

CJ 170C
Law Enforcement Reserve Training-Level III
4 units; 2 hours Lecture, 6 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: CJ 170B or equivalent..
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A continuation of basic law enforcement techniques for the prospective reserve officer and peace officers. Level III Module. Part two.

CJ 170D
POST Format Modular II Training
7 units; 3 hours Lecture, 12 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: CJ 170C.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The Modular II training is a continuation of basic law enforcement training for the prospective Reserve Officer and Peace Officer. At the conclusion of this module the student may apply for employment as a Level II Reserve Officer or after successfully passing a state proctored test, may continue to Modular I training to complete the Basic Academy requirements.

CJ 190A–Z
Special Topics in Criminal Justice
0.5-12 units; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Selected topics in Criminal Justice not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter. Any particular special topics course may be taken a total of four times.

Fire Technology Courses:

FT 1
Fire Protection Organization
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines fundamentals of fire department organization, management, and resources, emphasizing the use of those resources to control various emergencies. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

FT 2
Fire Prevention Technology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores the organization and function of fire prevention, including inspections; surveying and mapping procedures; recognition of fire and life hazards; and public education aspects of fire prevention. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
FT 3
Fire Protection Equipment and Systems
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines portable fire extinguishing equipment; fire detection and alarm systems, sprinkler systems; and protection systems for special hazards.
Transfer Credit: Transfers to CSU.

FT 4
Building Construction for Fire Protection
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the fundamentals of building construction as they relate to fire protection including occupancy, building equipment, facilities, fire resistive materials, and high-rise considerations.
Transfer Credit: Transfers to CSU.

FT 5
Fire Behavior and Combustion
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines theory and fundamentals of how and why fires start, spread, and are controlled including an in-depth study of fire chemistry, physics, characteristics of materials, extinguishing agents, and control techniques.
Transfer Credit: Transfers to CSU.

FT 7
Introduction to Hazardous Materials
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents emergency handling of toxic and radioactive materials, fuels, oxidizers, explosives, as well as flammability and hazard control for storage and transit.
Transfer Credit: Transfers to CSU.

FT 8
Wildlands Fire Control
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides the firefighter or fire protection technology major with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques.
Transfer Credit: Transfers to CSU.

FT 9
Fire Investigation
3 units; 3 hours Lecture
Repeatable: May be taken 3 times.
Recommended Preparation: FT 1; Eligibility for ENGL 100 and READ 100.
Explores causes and types of fire, related laws, recognition and preservation of evidence, and introduces witness and suspect interviews as well as arrest, detention, and court procedures.
Transfer Credit: Transfers to CSU.

FT 10
Emergency Responder, Advanced First Aid for Professionals
1 unit; 1 hour Lecture
Repeatable: May be taken 4 times.
Recommended Preparation: Cardiopulmonary Resuscitation (CPR); Eligibility for ENGL 100 and READ 100.
Meets the educational requirements for certification of advanced first aid as specified in the training standards of California Code of Regulations, Title 22, Division 9, Chapter 1.5. Prepares individuals to render first aid with emphasis on field application, practices and techniques vital to render immediate care for injury or sudden illness. Does not include CPR. Recommended for lifeguards, peace officers and camp staff personnel.

FT 140
Certified First Responder for Professionals
3 units; 3 hours Lecture
Repeatable: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides Emergency Responder and CPR for the Professional Rescuer certification through American Safety and Health Institute and fulfills California Code of Regulations, Title 22 requirements. Provides the training and skills in emergency care needed for peace officers, firefighters, emergency medical technicians, camp medical staff and others. Meets the CPR prerequisite and recommended preparation for admission to the EMT program (FT 183).

FT 150
Career Planning for Public Safety
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Prepares public safety candidates for the testing and hiring process for entry-level public safety positions. CJ 150 and FT 150 are cross listed courses. Students may enroll in either course for credit, but not both.

FT 151
Fire Apparatus Driver 1A
2.5 units; 2.5 hours Lecture
Prerequisite: FT 1 or employment as a paid or volunteer firefighter.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces requirements for California State Fire Service Training and Education System Certified Fire Apparatus Driver Operator including pump testing, emergency driving, and apparatus maintenance.

FT 152
Driver Operator 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 151.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines water systems, hydraulic calculations, pumping operations, and fire stream practices for California State Fire Service Training and Education System Certified Fire Apparatus Driver Operator.
FT 153
Essentials of Firefighter Safety
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the National Fire Protection Agency (NFPA) Standard 1500 including firefighter safety practices and new types of protective clothing and equipment.

FT 155D
Fire Technology Skills and Knowledge Modules
0.25-15 units; 0.75 hour Laboratory
Repeatability: May be repeated.
Prerequisite: Successful completion of or current enrollment in an agency approved Fire Academy.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Modules focusing on specific areas of fire technology skills and knowledge. Modules may be combined for variable units; up to three of which count toward electives in the fire technology major. Credit/no credit only. Open entry/Open exit.

FT 160
Fire Management I
2.5 units; 2.5 hours Lecture
Prerequisite: FT 162.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Academy requirements for Fire Management I by emphasizing the company officer's role in supervising, planning, and reviewing fire department organizations.

FT 161
Fire Command 1A
2.5 units; 2.5 hours Lecture
Prerequisite: FT 1, FT 3, FT 4, FT 5, FT 181 or completion of Firefighter 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California Fire Service Training and Education Systems requirements for Fire Command 1A by emphasizing company officers fire structure attack methods.

FT 162
Fire Command 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 161.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall requirements for Fire Command 1B by examining emergency scene management; fire behavior tactics and strategies; initial fireground resources; and fireground simulation scenarios.

FT 163
Fire Prevention 1A
2.5 units; 2.5 hours Lecture
Prerequisite: FT 2 and FT 3 or completion of Firefighter 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets the requirements of a California State Officer course by providing a broad, technical overview of fire prevention activities required for company officers to discharge their duties regarding fire prevention.

FT 164
Fire Prevention 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 163.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall requirements by examining regulations pertaining to fire prevention practices including building construction and occupancy; evacuation procedures; inspection reports; and processing plans.

FT 165
Fire Investigation 1A
2.5 units; 2.5 hours Lecture
Prerequisite: FT 161 or completion of Firefighter 1 (Basic Fire Academy) or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall requirements for Fire Investigation 1A, including determining fire cause; recognizing and preserving evidence; types of fires; related laws; and arson.

FT 166
Fire Investigation 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 165.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall requirements for Fire Investigation 1B Certification by exploring advanced fire investigation topics including juvenile fire setting, report writing, evidence collection, and preservation procedures.

FT 167
Fire Instructor 1A
2.5 units; 2.5 hours Lecture
Prerequisite: FT 161.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall Instructor Training 1A requirements including methods, procedures, and technology to select, develop, and organize in-service training programs.

FT 168
Fire Instructor 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 167.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall course requirements for Instructor Training 1B by presenting methods, procedures, and techniques to help fire service personnel select, develop, and organize materials for in-service training programs.
FT 169
Wildland Fire Management
2.5 units; 2.5 hours Lecture
Prerequisite: FT 189 or Firefighter 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets NWCG certified course requirements for current and prospective officers emphasizing command and tactics of initial wildland or urban interface fires, including safety and fire behavior, resources, and extended operations.

FT 175
Hazardous Materials—First Responder Operations
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Prepares student to carry out the initial response to a hazardous materials emergency.

FT 176
Confined Space I
0.25 unit; 0.25 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an overview of OSHA regulations as well as ANSI standards relative to confined space rescue.

FT 178
CPR for Health Providers
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches CPR skills for victims of all ages to health care providers, focusing on ventilation with a barrier device, a bag-mask device, use of an automated external defibrillator (AED).

FT 180
Basic Incident Command System 200
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces organization, basic terminology, and common responsibility information about Incident Command System (ICS) for personnel working in a support role at an incident or event.

FT 181
Intermediate Incident Command System 300
1.5 units; 1.5 hours Lecture
Prerequisite: FT 180 (State Fire Marshall Course # ISC 200).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reviews and further explores information designed to meet the needs of command officers managing complex emergency incidents.

FT 182
Advanced Incident Command System 400
1.5 units; 1.5 hours Lecture
Prerequisite: FT 181 (State Fire Marshall Course # ICS 200.).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces large-scale organizational development; rules and relationships of primary staff; and the planning, operational, and fiscal considerations related to complex incident and event management. Intended for chief officers and designed to meet the needs of command officers managing complex emergency incidents.

FT 183
Emergency Medical Technician-B
7 units; 7 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: FT 178 State Requirement: Current CPR card for Health Care Provider (infant/child/adult).
Corequisite: FT 183L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets the State of California requirements for an Emergency Medical Technician-B (EMT-B) to render pre-hospital basic life support services, with emphasis on practices and techniques, vital to the interaction of EMT-B personnel with all levels of emergency medical personnel. State Requirement: Current CPR card for Health Care Provider (infant/child/adult).

FT 183L
Emergency Medical Technician Lab
1-3 units; 3 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Prepares for application of emergency medical technician skills (and skills portion of the Santa Cruz County EMT certifying exam) through practice on issues from vital signs assessment to emergency childbirth.

FT 184
Emergency Medical Technician-B Refresher
1.5 units; 1.5 hours Lecture
Repeatability: May be repeated.
Prerequisite: Possession of a valid EMT-B certificate or a certificate that has been expired for less than one year.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State requirements for renewal of Emergency Medical Technician-B certification for persons who hold a valid EMT-B certificate or one that has been expired for less than one year.

FT 184S
EMT-B Refresher Skills Proficiency Evaluation
0.5-3 units; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Prerequisite: Emergency Medical Technician-Basic certification.
Corequisite: Completion of or concurrent enrollment in FT 184.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets the State of California requirements for skills verification for renewal of Emergency Medical Technician-Basic certification. Consists of scenario and skills practice and verification.
FT 185
Firefighter-I Academy
10 units; 20 hours Lecture
Repeatability: May be repeated.
Prerequisite: 1. Ability to meet the Academy medical standards as certified by a medical doctor. 2. Ability to pass a pre-academy physical agility examination. 3. Submission of a completed application and payment of all fees.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Meets standards for certification by the State Board of Fire Services and the California State Fire Marshall for Firefighter 1 basic course, focusing on competent and comprehensive training in the field of Fire Technology as it relates to firefighters.

FT 186
Preparing for your Fire Service Career
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on preparation of application and techniques for success in written, physical agility, and oral interview portions of the recruitment process.

FT 188
Advanced EMS: Preparing for Paramedic Training
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: FT 183 or equivalent; EMT and CPR certification required.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Prepares Emergency Medical Technicians for testing into paramedic school introducing aspects of advanced life support patient care. Upon course completion students will receive 24 C.E.U.s toward EMT recertification.

FT 189
CDF Wildland Firefighter 1 Academy
2.25 units; 6.75 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: 1. Meet the academy medical standards as certified by a medical doctor. 2. Pass a pre-academy physical agility examination. 3. Submit completed public safety program application.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches basic wildland firefighting skills, laws, and regulations including safe use of hoses, tools, equipment, and ladders.

FT 190A-Z
Special Topics in Fire Technology
0.5-12 units; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces selected topics in Fire Technology not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.

RADIOLOGIC TECHNOLOGY
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Ann Smeltzer, Program Chair, (831) 479-5056
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6461 for more information
http://www.cabrillo.edu/programs

Radiologic Technology Occupational Program

This is a two-year Associate in Science Degree program providing professional training for Radiologic Technologists. Radiologic Technologists work in a professional environment at a hospital, clinic or private office. Skill categories include patient care, positioning, operating X-ray equipment, film quality, assessment, technical factors, and interacting with the general public, ancillary workers and physicians.

The RT Program is accredited by the Joint Review Committee on Education in Radiologic Technology and the State of California Department of Public Health. This program has earned the highest level of accreditation awarded by the JRCERT. A new class begins each year at the start of fall semester. Students who successfully complete the program are eligible for State Certification in Diagnostic Radiography and to take the State Permit exam in Fluoroscopy. Program graduation also provides eligibility to sit for the American Registry of Radiologic Technology (ARRT) national board examination. Program applications are accepted on a first come, first served basis.

Requirements for application include: Successful completion of the program prerequisites listed below, and the completion of the application process. Selection is based on completion of all required prerequisites with the appropriate GPA, clinical space available, and date of application. The program has a separate selection process and requires separate application in addition to the general College admission. For students not currently enrolled at Cabrillo College, general college application materials are available in the Admissions Office and on the Cabrillo College web site. Radiologic Technology program applications are available in the counseling and RT offices and on the RT web site. Two official transcripts must be sent with the program application. After reading the appropriate sections of the Cabrillo College Catalog and the Radiologic Technology program brochure, please contact the RT office at (831) 479-6461 for specific directions on application. Due to the course load, it is advisable to complete as many of the general education requirements as possible before entering the program. Meeting minimum requirements does not guarantee entry into the program as enrollment is limited due to hospital clinical space. Currently there is a shortage of radiologic technologists. Job opportunities are abundant in all modalities and well compensated.
<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 4</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>*BIO 5</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
</tr>
<tr>
<td>PHYS 10</td>
<td>Introduction to Physics</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td></td>
</tr>
</tbody>
</table>

*A course such as CHEM 30A or CHEM 32 is the prerequisite for BIO 5; Elementary Algebra (MATH 154) or placement into Intermediate Algebra (MATH 152) by assessment is a prerequisite to CHEM 30A or CHEM 32.

Please see a counselor or check www.assist.org for more information if you are interested in transfer to a 4-year university in Radiologic Technology. All prerequisites and published curriculum courses must be completed with a grade of "C" or better with the exception of MA 70, which requires a minimum of a "B" grade. These prerequisites may also be used to satisfy appropriate general education areas.

**Elective Not Required for Radiologic Technology Degree**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH 101</td>
<td>A Review of Anatomy and Physiology</td>
<td>2</td>
</tr>
</tbody>
</table>

**Core Courses (63.75 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 50</td>
<td>Introduction to Radiologic Technology/ Patient Care</td>
<td>2</td>
</tr>
<tr>
<td>RT 50L</td>
<td>RT Patient Care Lab</td>
<td>¼</td>
</tr>
<tr>
<td>RT 51</td>
<td>Radiographic Positioning I.</td>
<td>2</td>
</tr>
<tr>
<td>RT 51L</td>
<td>Radiographic Positioning Lab I</td>
<td>1</td>
</tr>
<tr>
<td>RT 52</td>
<td>Radiation Physics.</td>
<td>2</td>
</tr>
<tr>
<td>RT 53A</td>
<td>Basic Rad T Lab/Clinic I</td>
<td>5½</td>
</tr>
<tr>
<td>RT 53B</td>
<td>Rad T Lab/Clinic II</td>
<td>1½</td>
</tr>
<tr>
<td>RT 53C</td>
<td>Rad T Lab/Clinic III</td>
<td>5½</td>
</tr>
<tr>
<td>RT 53D</td>
<td>Rad T Lab/Clinic IV</td>
<td>8</td>
</tr>
<tr>
<td>RT 60</td>
<td>Principles of Radiographic Imaging</td>
<td>2</td>
</tr>
<tr>
<td>RT 60L</td>
<td>Principles of Radiographic Imaging I-Laboratory Seminar</td>
<td>½</td>
</tr>
<tr>
<td>RT 61</td>
<td>Radiographic Positioning</td>
<td>2</td>
</tr>
<tr>
<td>RT 61L</td>
<td>Radiographic Positioning Lab II.</td>
<td>1</td>
</tr>
<tr>
<td>RT 62</td>
<td>Principles of Radiation Protection</td>
<td>2</td>
</tr>
<tr>
<td>RT 63</td>
<td>Advanced Positioning Lab/Clinic IV</td>
<td>4</td>
</tr>
<tr>
<td>RT 64</td>
<td>Advanced Positioning Lab/Clinic V</td>
<td>1½</td>
</tr>
<tr>
<td>RT 65</td>
<td>Advanced Positioning Lab/Clinic VI</td>
<td>8</td>
</tr>
<tr>
<td>RT 70</td>
<td>Principles of Fluoroscopy</td>
<td>1</td>
</tr>
<tr>
<td>RT 70L</td>
<td>Applied Principles of Radiographic Imaging II</td>
<td>½</td>
</tr>
<tr>
<td>RT 71</td>
<td>Radiographic Positioning III.</td>
<td>2</td>
</tr>
<tr>
<td>RT 71L</td>
<td>Positioning Laboratory III</td>
<td>1</td>
</tr>
<tr>
<td>RT 72</td>
<td>Advanced Diagnostic Imaging Research</td>
<td>2</td>
</tr>
<tr>
<td>RT 73</td>
<td>Medical Imaging Pathology</td>
<td>1</td>
</tr>
<tr>
<td>RT 82</td>
<td>Advanced Diagnostic Imaging</td>
<td>1</td>
</tr>
<tr>
<td>RT 83</td>
<td>Preparation for State and National Boards</td>
<td>2</td>
</tr>
<tr>
<td>RT 175</td>
<td>Advanced Patient Care: Venipuncture for Radiographers</td>
<td>½</td>
</tr>
</tbody>
</table>

**Electives-Magnetic Resonance Imaging**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 189A</td>
<td>Sectional Anatomy</td>
<td>1</td>
</tr>
<tr>
<td>RT 190</td>
<td>MRI Physics</td>
<td>3</td>
</tr>
<tr>
<td>RT 191</td>
<td>MRI Imaging and Procedures</td>
<td>2</td>
</tr>
<tr>
<td>RT 192</td>
<td>MRI Lab/Clinic</td>
<td>8</td>
</tr>
</tbody>
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**Electives-Mammography**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 185</td>
<td>Principles of Mammography</td>
<td>2</td>
</tr>
<tr>
<td>RT 185L</td>
<td>Principles of Mammography Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

**Skills Certificate: Venipuncture**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 175</td>
<td>Advanced Patient Care: Venipuncture</td>
<td>½</td>
</tr>
</tbody>
</table>

**General Education**

This A.S. Degree requires completion of a 21-unit general education pattern (see Cabrillo College Catalog under Associate in Science Degree or the A.S. Degree worksheets available in Counseling Division or on the Transfer and Articulation website.) A Bachelor of Science/Bachelor of Arts Degree from a regionally accredited college or university will satisfy all general education and competency requirements for Cabrillo’s non-transfer A.A. and A.S. Degrees, with the exception of the multicultural requirement and program specific graduation requirements.

**Mathematics Competency Requirement**

The A.S. Mathematics Requirement may be met by successful completion of intermediate algebra or equivalent or a higher-level mathematics course with a grade of "C" or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.

**Multicultural Requirement**

An approved multicultural course is required for graduation. This course may be double counted with general education or other program graduation requirements. Courses taken at other regionally accredited colleges can be used when approved by a Cabrillo counselor.

**Security Screening**

To comply with state and local regulations for health care providers, students accepted to the Cabrillo College Radiologic Technology program are required to meet vaccination and drug testing requirements and provide documentation to the Student Health Services Center before enrolling in the program. Students are also required to complete criminal background checks and may be required to undergo fingerprinting...

**Associate in Science Degree**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Courses</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Core Courses</td>
<td></td>
<td>63¾</td>
</tr>
</tbody>
</table>

*Total for A.S. Degree in Radiologic Technology 84¾

*Plus approved prerequisites. See above for information on prerequisites.
Radiologic Technology Courses

RT 50
Introduction to Radiologic Technology/Patient Care
2 units; 2 hours Lecture
Prerequisite: BIO 4; Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces fundamentals of radiologic technology with emphasis on basic patient care. Includes topics related to appropriate care of patients for general radiographic procedures. Review of standard precautions, HIPAA, health management systems, medical ethics, and professional standards.
Transfer Credit: Transfers to CSU.

RT 50L
R.T. Patient Care Laboratory
0.25 unit; 0.75 hour Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Corequisite: RT 50.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the fundamentals of patient care in radiologic technology with laboratory instruction and demonstration of safe practices in medical imaging. Includes practical applications of radiation protection, body mechanics, contrast media preparation, vital signs, asepsis, HIPAA regulations, and standard precautions.
Transfer Credit: Transfers to CSU.

RT 51
Radiographic Positioning I
2 units; 2 hours Lecture
Prerequisite: Selection to Radiologic Technology Program.
Corequisite: RT 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Radiographic positioning and related anatomy of the chest, abdomen, upper and lower limbs. Includes basic radiographic terminology. Review of related pathologies and their radiographic appearances. Includes routine and non-routine radiographic procedures.
Transfer Credit: Transfers to CSU.

RT 51L
Positioning Laboratory I
1 unit; 3 hours Laboratory
Prerequisite: Selection to Radiologic Technology Program.
Corequisite: RT 51.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Apply radiographic anatomy and positioning of the chest, abdomen, upper and lower extremities. Structured, individualized instruction accompanied by laboratory demonstration. Principles of anatomy and physiology are applied to discussions and practice in problems in positioning.
Transfer Credit: Transfers to CSU.

RT 52
Radiation Physics
2 units; 2 hours Lecture
Prerequisite: PHYS 10; Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides a basic understanding of the physical principles underlying the production of X-rays and interaction with matter, a study of the fundamentals of: atomic structure, X-ray tubes, circuits, types, measurement and properties, types of X-ray machines, principles of magnetism, elements of electricity, electrical power, current, resistance, transformers, rectifiers and quality assessment.
Transfer Credit: Transfers to CSU.

RT 53A
Introduction to Radiologic Technology Laboratory/ Clinic I
5.5 units; 16.5 hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies classroom theory (RT 51) and laboratory practice (RT 51L) in clinical education facilities by assignment. Participates in clinical introduction to radiographic procedures, radiology management systems, computerized patient systems and radiation safety and patient care under direct supervision.
Transfer Credit: Transfers to CSU.

RT 53B
Radiologic Technology Lab/Clinic II
1.5 units; 4.5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: RT 53A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continuation of applied classroom theory (RT 51) and laboratory practice (RT 51L) in clinical education facilities by assignment. Participates in radiographic procedures, radiology management systems, computerized patient systems, basic radiation safety and basic patient care under direct supervision.
Transfer Credit: Transfers to CSU.

RT 53C
Radiologic Technology Laboratory/ Clinic III
5.5 units; 16 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: RT 53A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Clinical application of classroom theory (RT 51 and 61) and laboratory practice (RT 51L and 61L) in clinical education facilities by assignment. The student radiographer, under direct supervision, participates in and/or performs radiographic procedures.
Transfer Credit: Transfers to CSU.
RT 53D
Radiologic Technology Laboratory/ Clinic IV
8 units; 24 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: RT 53C.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies classroom theory (RT 51 and 61) and laboratory practice (RT 51L and 61L) in clinical education facilities by assignment. The student radiographer, under direct supervision, participates in radiographic/fluoroscopic procedures, radiology management systems, computerized patient systems, radiation safety, and patient care.
Transfer Credit: Transfers to CSU.

RT 60
Principles of Radiographic Imaging
2 units; 2 hours Lecture
Prerequisite: RT 52.
Corequisite: RT 60L.
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Reviews the techniques employed in the use and control of x-ray equipment in radiographic procedures. Introduces darkroom chemistry, film processing, film/cassettes types and construction and the impact of contrast and density, and technique formulation. Studies the fundamentals of the photographic process; digital and computerized radiographic principles and general radiographic QA/QC.
Transfer Credit: Transfers to CSU.

RT 61L
Radiographic Positioning Lab II
1 unit; 3 hours Laboratory
Prerequisite: RT 51L.
Corequisite: RT 61.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies laboratory assignments as related to concurrent instruction in RT 61. Students apply positioning principles and criteria in a mock situation. Both routine and optional positions are presented.
Transfer Credit: Transfers to CSU.

RT 62
Principles of Radiation Protection
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: RT 52.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies state and federal laws which govern and control the use of ionizing radiation and the manufacture and use of radiation equipment. An introduction to radiation protection with methods of protection from radiation for the patient and the technologist and radiobiology with emphasis on absorption of radiation and its effects upon biological tissue.
Transfer Credit: Transfers to CSU.

RT 63
Advanced Positioning Lab/Clinic IV
8 units; 24 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies classroom theory (RT 51, 61, and 71) and laboratory practice (RT 51L, 61L, 71L) in clinical education facilities by assignment. The student under indirect/direct supervision where appropriate, participates in radiographic procedures, radiology management systems, computerized patient system, radiation safety, and patient care appropriate to the program level.
Transfer Credit: Transfers to CSU.

RT 64
Advanced Positioning Lab/Clinic VI
1.5 units; 5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: RT 63.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies classroom theory (RT 51, 61, and 71) and laboratory practice (RT 51L, 61L, 71L) in clinical education facilities by assignment. The student, under indirect/direct supervision where appropriate, participates in and/or performs radiographic procedures, radiology management systems, computerized patient system, radiation safety, and patient care appropriate to the program level.
Transfer Credit: Transfers to CSU.
RT 65
Advanced Positioning Lab/Clinic VII
8 units; 24 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies classroom theory (RT 51, 61, and 71) and laboratory practice (RT 51L, 61L, 71L) in clinical education facilities by assignment. The student under indirect/direct supervision where appropriate, participates in radiographic procedures, radiology management systems, computerized patient system, radiation safety, and patient care appropriate to the program level.
Transfer Credit: Transfers to CSU.

RT 70
Principles of Fluoroscopy
1 unit; 1 hour Lecture
Repeatability: May be taken 2 times.
Prerequisite: ARRT/CRT License.
Corequisite: RT 70L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an overview of the State of California Fluoroscopy regulations, radiation safety, equipment image intensifiers, closed circuit T.V., image recording devices, mobile image intensified units, anatomy and physiology of the eye and relative 3-D anatomy.
Transfer Credit: Transfers to CSU.

RT 70L
Applied Principles of Fluoroscopy
0.5 unit; 1.5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: ARRT/CRT License or 2nd year Radiologic Technology Student.
Corequisite: RT 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies scattered radiation effects, the appropriate use of collimation, fluoroscopic equipment selection and use, control of automatic brightness control (ABC), quality assurance practices, and quality control of radiographic and fluoroscopic equipment in Fluoroscopy laboratory.
Transfer Credit: Transfers to CSU.

RT 71
Radiographic Positioning III
2 units; 2 hours Lecture
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Apply Part III of the radiographic positioning course sequence including the cranium, facial bones, and paranasal sinuses.
Transfer Credit: Transfers to CSU.

RT 71L
Positioning Laboratory III
1 unit; 3 hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Apply Part III of the radiographic positioning laboratory course sequence, including the cranium, facial bones, and paranasal sinuses.
Transfer Credit: Transfers to CSU.

RT 72
Advanced Diagnostic Imaging Research
2 units; 2 hours Lecture
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the analysis of technically advanced imaging modalities including CT, MRI, PET and other imaging modalities.
Transfer Credit: Transfers to CSU.

RT 73
Medical Imaging Pathology
1 unit; 1 hour Lecture
Repeatability: May be taken 2 times.
Prerequisite: RT 61.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A survey of pathologies and their manifestations in medical imaging. Physiology of the human body as it relates to medical imaging and how pathology commonly impacts body functions are reviewed in case studies.
Transfer Credit: Transfers to CSU.

RT 82
Advanced Diagnostic Imaging
1 unit; 1 hour Lecture
Prerequisite: RT 72.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents advanced radiographic procedures to include advanced modalities of computerized tomography, computed radiography, and angiography.
Transfer Credit: Transfers to CSU.

RT 83
Preparation for State and National Boards
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: Graduation from accredited RT program or 2nd year Radiation Technology Student.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Analyzes, evaluates and critiques the theory and practice of the following: care and management of the patient; radiologic analysis and positioning, radiation protection for radiography and fluoroscopy; darkroom chemistry; radiation physics, radiographic and fluoroscopic equipment, fluoroscopy principles and principles of radiographic techniques. Included is a comprehensive review of the State of California’s Health, Title XVII regarding fluoroscopic radiation laws.
Transfer Credit: Transfers to CSU.
Advanced Patient Care: Venipuncture for Radiographers
0.5 unit; 0.5 hour Lecture, 0.5 hour Laboratory
Repeatability: May be taken 4 times.
Prerequisite: Current CPR/Healthcare Provider Card; RT enrollment, ARRT or CRT; RT 61.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Basic instruction and practice of venipuncture methods/procedures for the administration of contrast agents. Routes of administration, safety, basic pharmacology, dosage calculations and emergency procedures.

Basic Radiologic Technology Laboratory/Clinic II
1.5 units; 2.5 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: RT 53A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The clinical application of classroom theory (RT51) and laboratory practice (RT51L) is offered in clinical education facilities by assignment. The student radiographer, under direct supervision participates in and/or performs radiographic procedures.

Special Topics in Radiologic Technology
1-3 units; 3 hours Laboratory
Repeatability: May be taken 4 times.
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Enrichment program in the radiologic sciences. Course is tailored to individual needs and interests as enrichment or expansion of subject area material through lab and/or field work, learning lab or directed reading. May be taken a total of four times or a maximum of 12 units of different topics.

Principles of Mammography
2 units; 2 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: CRT or ARRT license or within one year of graduation in a Radiologic Technology Program.
Corequisite: RT 185L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the theory and practice of mammographic positioning, quality assurance/quality control, and imaging the anatomy and pathophysioloogy of the breast. Course prepares the student for the state and national certification exams in mammography.

Principles of Mammography Lab/Clinic
1 unit; 3 hours Laboratory
Prerequisite: Certified Radiologic Technologist (CRT) or American Registry of Radiologic Technologists (ARRT) license or within one year of graduation in a Radiologic Technology Program.
Corequisite: RT 185 and RT 185L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Clinical application of classroom theory and laboratory skills (RT185 and RT185L) with practical use of Mammography patient and imaging protocols. Demonstration of competency in current mammographic practices to meet qualifications under the Mammography Quality Standards Act (MQSA Federal regulations) in conjunction with California state certification requirements.

Principles of Mammography Lab
1 unit; 3 hours Laboratory
Prerequisite: ARRT/CRT or 2nd year Radiologic Technology student.
Corequisite: RT 185.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Laboratory component to RT 185. Breast positioning and imaging techniques; quality control/quality assurance; operation of mammographic equipment; operation of dedicated automatic processor.

Sectional Anatomy
1 unit; 1 hour Lecture
Prerequisite: BIO 4 or equivalent skills.
Corequisite: RT 189AL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies sectional human anatomy for health care professionals. Emphasis on transverse planes as related to sonography, computerized tomography and magnetic resonance imaging.
RT 190
Magnetic Resonance Imaging (MRI) Physics
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: ARRT certification or CRT License or 2nd year RT student; and CPR (Health Care Provider) certification and venipuncture certification.
Corequisite: RT 191.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reviews the fundamentals of magnetic resonance imaging (MRI) principles. Includes study of T1-T2 relaxation, pulse sequences, image formation, contrast media and instrumentation.

RT 191
Magnetic Resonance Imaging and Procedures
2 units; 2 hours Lecture
Repeatability: May be taken 3 times.
Prerequisite: ARRT certification or CRT License or 2nd year RT student; and CPR (Health Care Provider) certification and venipuncture certification and RT 189A or equivalent.
Corequisite: RT 190.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reviews common and specialty magnetic resonance imaging methodology and procedures. Studies magnetic resonance imaging with computer applications, scanner operations, and patient examination procedures.

RT 191L
Applied MRI Protocol and Procedures
0.5 unit; 1.5 hours Laboratory
Repeatability: May be taken 3 times.
Corequisite: RT 191.
Recommended Preparation: Eligibility for MATH 154; ENGL 100 and READ 100.
Applies classroom theory (RT190 and RT191) to the lab setting. Studies the effects of computer applications, scanner operations and patient examination procedures on MRI.

RT 192
Magnetic Resonance Imaging Lab/Clinic
8 units; 24 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: RT 190 RT 191.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces clinical education in the practice of Magnetic Resonance Imaging procedures. Demonstration of competency of MRI current practices.

RT 193
Advanced Magnetic Resonance Imaging Lab/Clinic
13 units; 40 hours Laboratory
Prerequisite: RT 192.
Recommended Preparation: Eligibility for MATH 154; ENGL 100 and READ 100.
Provides advanced clinical education in the practice of Magnetic Resonance Imaging procedures and opportunity for student competency in MRI current practices.

READING
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Nancy Phillips, Program Chair, (831) 477-3208
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Reading Courses

READ 20
Techniques of Tutoring Reading
3 units; 3 hours Lecture
Prerequisite: ENGL 100 and READ 100.
The course provides background for students to become effective tutors in reading. The student will be able to diagnose basic reading problems, prepare appropriate material, and employ proper techniques when tutoring a remedial reader.
Transfer Credit: Transfers to CSU.

READ 52
Speed and Comprehension
2 units; 2 hours Lecture
Prerequisite: READ 100/106 with appropriate assessment score.
Recommended Preparation: Completion of ENGL 100.
The course is designed to improve both reading speed and comprehension with a limited amount of vocabulary work. The class is organized on a group and individual basis, using various materials and equipment.
Transfer Credit: Transfers to CSU.

READ 100
College Reading
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A college level reading class for students whose reading skill is at the college level but who lack the necessary experience in reading for comprehension, analysis, and application.
READ 106
Individualized Reading
1-3 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Open to all students with average or better reading ability. Diagnostic tests will determine weaknesses and strengths in study-skill, vocabulary, comprehension, and speed. Assignments using various materials and equipment will be arranged on an individual contract basis, depending on test results. The required class time depends on the number of units the student desires. Pass/no pass grading only.

READ 107
Pleasure Reading
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores pleasurable reading experiences through a variety of texts and identifies titles in areas such as travel, fantasy, humor, realism, and others. Some oral reading and improvement of reading efficiency.

READ 109A
Learning From Text
1 unit; 1 hour Lecture
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches students to read and study academic text effectively using the assigned readings and lectures of their academic courses (i.e. Psychology, Economics, etc.).

READ 112
Vocabulary (Advanced)
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Helps students build their English vocabularies through individualized work in the Reading Lab. The student works independently with no formal class meeting, completing approximately 50 hours of study. Pass/no pass grading only.

READ 205
Introduction to College Reading
3 units; 3 hours Lecture
Open to students whose reading skills are below college level. Emphasis is placed upon improving fundamental reading skills, including word recognition, comprehension and vocabulary knowledge. Students are expected to spend the time outside class to raise their level of reading ability. Recommended for international students and those with below average reading skills. Pass/no pass grading only.

READ 206
Individualized Reading
1-3 units; 2 hours Laboratory
Open to students with below college level reading ability. Diagnostic test will determine weaknesses and strengths in study skills, vocabulary, comprehension and speed. Assignments using various materials and equipment will be arranged on an individual contract basis, depending on test results. The required time depends on the number of units the student desires. Pass/no pass grading only.

READ 206SL
ESL Individualized Reading
1-3 units; 2 hours Laboratory
Designed for students whose first language is not English, with below college reading ability. Diagnostic tests determine strengths and weaknesses in vocabulary, comprehension, speed, and study skills. Assignments arranged individually according to test results. Pass/no pass grading only.

READ 210A
Vocabulary (Basic)
1 unit; 3 hours Laboratory
Course consists of programmed instruction, tapes and texts. The student works independently with no formal class meetings, completing approximately 50 hours of study. After enrolling, the student should check at the Reading Center for specific procedures as hours are arranged. Pass/no pass grading only.

READ 210B
Vocabulary (Intermediate)
1 unit; 3 hours Laboratory
This course consists of programmed instruction, tapes and texts. The student works independently with no formal class meetings, completing approximately 50 hours of study. After enrolling, the student should check at the Reading Center for specific procedures as hours are arranged. Pass/no pass grading only.

READ 255
Basic Reading
3 units; 3 hours Lecture
A literature-based course open to those students whose skill in reading is below college level. Emphasis is placed on comprehension, vocabulary improvement, and reading in content areas. Designed for ESL students and students who struggle with comprehension and vocabulary. Pass/no pass grading only.

READ 502
Supervised Tutoring in Reading
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Supervised individual and group drop-in tutoring assistance in a variety of areas, ranging from basic skills and vocabulary work, to content-area reading, critical and analytical reading and vocational reading. May be taken for support in other courses, including basic skills, vocational, and transferable courses.
REAL ESTATE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Mo Hassan, Program Chair, (831) 477-3201
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Real Estate Occupational Program
The Real Estate program presents classes for individuals wishing to gain more skill and knowledge in the growing and dynamic field of real estate. Employment opportunities exist in real estate for salespeople and brokers. Financial firms also seek qualified and knowledgeable individuals in various job capacities. The program offers courses which are required for California sales agents and brokers licenses. Please refer to the California Department of Real Estate at http://www.dre.ca.gov/ for up-to-date licensing requirements.

Real Estate Courses

RE 140
Mortgage Loan Brokering and Lending
3 units; 3 hours Lecture
Recommended Preparation: RE 150, BUS 18; Eligibility for ENGL 100 and READ 100.
Teaches the use of principles and operations of the mortgage loan brokering industry and lending procedures. The emphasis is on the lending regulations and rules for residential property. The course will examine consumer lending, mortgage plans and procedures, mortgage loan processing, the role of a loan officer in establishing credit, obtaining and checking information, and servicing loans.

RE 150
Real Estate Principles
3 units; 3 hours Lecture
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the fundamentals of the real estate field, practice and procedures in California. Subjects covered will be real estate licensing procedures, use of real estate forms, best practices in selling and buying real estate, and general aspects of real property ownership in California. Satisfies Salesperson’s license requirement and elective credit for Broker’s license. May be offered in a Distance-Learning Format.

RE 151
Real Estate Economics
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An advanced course in economic principles governing activities of the real estate market, including real estate investment procedures, tax shelter and real estate exchanging. Post license or equivalent course. May substitute ACCT 1A for this course.

RE 152
Real Estate Practice
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys real estate industry: public relations, personal ethics, listing, marketing, contracts, tax aspects, qualifying buyers, financing, net sheets, closing costs. Overview also includes income property acquisition and management. May be offered in a Distance-Learning Format.

RE 153
Real Estate Finance
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents practical applied study and analysis of money markets, interest rates and real estate financing. Actual case illustrations demonstrate lending policies, problems, and rules involved in financing real property, focusing mainly on residential property.
**RE 154A**  
Legal Aspects of Real Estate  
3 units; 3 hours Lecture  
Prerequisite: RE 150 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
The history of Real Estate law in the State of California and the hows and whys, through legislation and court decisions, the application of the law has been affected by the changes in society and sociological needs of our population. May be offered in a Distance-Learning Format.

**RE 154B**  
Advanced Legal Aspects of Real Estate  
3 units; 3 hours Lecture  
Prerequisite: RE 154A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
An advanced course in legal aspects of real estate, covering acquisition and transfer of title to real property, methods of ownership, leasehold estate, usability, property restriction, trust deeds, enforceability of land sales contracts, contractual rights under deposit receipts, the broker’s role and title insurance. Satisfies elective credit for Broker’s license.

**RE 155A**  
Real Estate Appraisal  
3 units; 3 hours Lecture  
Prerequisite: RE 150 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
A general first course in Real Estate appraisal. Basic principles of appraisals are covered as well as the three approaches to value: cost comparable sales, and income. Single family residential properties are emphasized, with the last part of the course being devoted to income properties.

**RE 155B**  
Advanced Real Estate Appraisal  
3 units; 3 hours Lecture  
Prerequisite: RE 155A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Advanced course in appraising, applying principles learned in RE 155A to more complex properties. An applied study of techniques and problems of appraising stores, offices, apartments, manufacturing, condominiums, subdivisions, high technology buildings and special purpose properties. Emphasis will be on the income approach to value.

**RE 156**  
Escrow  
3 units; 3 hours Lecture  
Prerequisite: RE 150 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces methods and techniques of escrow procedures for various types of business transactions with emphasis on real estate. The material covered should be of value to all those involved directly or indirectly with the escrow industry and those who are preparing to enter this field. Satisfies elective credit for Broker’s license.

**RE 157**  
Property Management  
3 units; 3 hours Lecture  
Prerequisite: RE 150 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Teaches functions of real estate management and forms of real estate ownership, property analysis, management contracts and fees, marketing, special properties, accounting and budgeting, trust accounts, tenant-management relations, insurance, property maintenance. May be offered in a Distance-Learning Format.

**RE 193**  
Real Estate Computer Applications  
3 units; 3 hours Lecture  
Repeatability: May be taken 2 times.  
Prerequisite: RE 150.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces the student to a broad overview of Internet, communications and software applications used in the day-to-day life of real estate and related professions. Topics begin with basic computer skills and progresses to the more complex tasks such as: e-commerce practices, real estate-specific software, trust fund handling, and escrow practices.

**RE 195**  
Real Estate Common Interest Developments  
3 units; 3 hours Lecture  
Repeatability: May be taken 2 times.  
Prerequisite: RE 150.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Covers the basics of managing, purchasing and selling of common-interest developments that are governed by homeowner associations, including condominiums. Provides broad knowledge of the legal requirements associated with common-interest developments and the business skills necessary to properly manage these developments.

**SIGN LANGUAGE STUDIES**  
Business, English, and Language Arts Division  
James Weckler, Division Dean  
Division Office, Room 501  
H. Jay Siskin, Program Chair, (831) 477-3207  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6400 for more information  
http://www.cabrillo.edu/programs
Sign Language Studies Courses

SLS 1
Beginning American Sign Language
4 units; 4 hours Lecture
Corequisite: SLS 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduction of the language with an emphasis on signing, receptive skills, signing parameters, as well as use of a basic glossing system for written ASL. Study of Deaf culture and Deaf community.
Transfer Credit: Transfers to CSU, UC.

SLS 2
Elementary American Sign Language
4 units; 4 hours Lecture
Prerequisite: SLS 1 or equivalent experience.
Corequisite: SLS 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continued practice of basic skills initiated in SLS 1. Further study of Deaf community and culture.
Transfer Credit: Transfers to CSU, UC.

SLS 3
Intermediate American Sign Language
4 units; 4 hours Lecture
Prerequisite: SLS 2 or equivalent experience.
Corequisite: SLS 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Development of intermediate SLS skills, including review of grammar. Deaf culture and community is presented through readings, videos and discussions in ASL.
Transfer Credit: Transfers to CSU, UC.

SLS 50L
Sign Language Studies Language Laboratory
1-4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Receptive/expressive skill practice, fingerspelling, vocabulary and grammar drills done in Language Lab or independently. The recorded materials parallel the course content of SLS 1-2. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

SOCILOGY

Human Arts and Social Science Division
Nancy A. Brown, Division Dean
Division Office, Room 420
M. Teresa Macedo, Program Chair, (831) 477-3254
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Sociology Majors
Sociology is the scientific, systematic study of human society, and social interaction. The sociological perspective is a powerful tool to critically analyze and understand contemporary society at the local, regional, national, and global levels. Sociology focuses on face-to-face social interactions as well as on large-scale social institutions such as economy, politics, education, mass media, religion, and the criminal justice system. Sociology's subject matter ranges from the intimate family setting to the large, impersonal organization, from the world of work to the world of sport, from social divisions of class, race, and gender to cultural bonds based on shared values and traditions. It emphasizes how individual behavior is influenced by the structure of society and how individual behavior can change the structure of society. The program at Cabrillo provides a solid core curriculum that includes general and topical courses. All classes emphasize multicultural and gender issues.

A sociology major usually transfers to a four-year institution to complete a Bachelor's Degree. Because of the broad scope of subject matter, sociology is excellent preparation for a wide range of career paths, including teaching, journalism, law, business, communications, non-profit management, corrections/law enforcement, social work, counseling, urban planning, public service, and politics.

MODEL PROGRAM FOR SOCIOLOGY
The following model program fulfills requirements for an A.A. Degree in Sociology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses (12 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SOC 1/H</td>
<td>Introduction to Sociology: Understanding Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2/H</td>
<td>Contemporary Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 3</td>
<td>Sociology of Race and Ethnicity</td>
<td>3</td>
</tr>
<tr>
<td>SOC 9</td>
<td>Global Society and Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

Highly Recommended:

*MATH 12/12H Elementary Statistics | 4 |

*A transferable math course is required for transfer to CSU or UC. MATH 12 is specifically required by UC Berkeley.
Approved Sociology Electives:

SOC 5 Sociology of Gender ........................................ 3
SOC 8 Sociology of Latinos and Latinas .......................... 3
SOC 47 Sociology of Crime and Deviance ....................... 3

Other Electives:

ANTHR 2 Introduction to Anthropology: Cultural .......... 3
ANTHR 17 Global Perspective of Food and Culture ........ 3
BUS 75 Business, Society and Government .................. 3
COMM 12 Intercultural Communications ..................... 3
ECON 1A Introduction to Macroeconomics ................... 3
OR
ECON 1B Introduction to Microeconomics ..................... 3
HIST 15 Recent American History ............................... 3
HIST 17B/17BH United States History since 1865 .......... 3
HIST 21B/21BH Chicano History since 1865 .................. 3
HIST 29B African American History since 1865 ............. 3
PS 2 Comparative Government .................................... 3
P 3 International Relations ....................................... 3
PSYCH 6 Introduction to Social Psychology ................... 3
WS 1 Introduction to Women’s Studies: Global Perspectives 3
WS 2 Introduction to Women’s Studies: La Mujer .......... 3
WS 11 Feminist Theory and Methodology ........................ 3

SOC 1H
Honors Introduction to Sociology: Understanding Society
3 units; 3 hours Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.

Introduces basic sociological concepts, theories, and methods used to understand the dynamics of human interaction and society, including culture, stratification, social mobility, identity, and collective behavior as they affect individuals and society. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.

Transfer Credit: Transfers to CSU, UC.

SOC 2
Contemporary Social Problems
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines major social problems and alternative solutions. Topics considered may include poverty; race, sex, age discrimination; crime, deviance, and drug abuse; sexuality; health; education; economy; politics; and such global problems as population, pollution, and international conflict. Encourages development of a sociological perspective for thinking about controversial social issues. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU, UC.

SOC 2H
Honors Contemporary Social Problems
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.

Examines major social problems and alternative solutions. Topics considered may include poverty; race, sex, age discrimination; crime, deviance, and drug abuse; sexuality; health; education; economy; politics; and such global problems as population, pollution, and international conflict. Encourages development of a sociological perspective for thinking about controversial social issues. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.

Transfer Credit: Transfers to CSU, UC.

SOC 3
Sociology of Race and Ethnicity
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines the sociological dynamics of race and ethnicity in the United States, focusing on minority-majority relations. Explores the interplay between race, ethnicity, and social institutions. Topics may include immigration patterns, identity formation, and comparative race/ethnic relations. Emphasizes socioeconomic and gender issues.

Transfer Credit: Transfers to CSU, UC.
SOC 5
Sociology of Gender
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Analyzes masculine and feminine socialization and roles in society with an emphasis on concepts of the self, reciprocal role expectations, sociological interpretations of the causes and consequences of sex role differentiation, and how these impact the individual, society, and social change.
Transfer Credit: Transfers to CSU, UC.

SOC 8
Sociology of Latinos and Latinas
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores the contemporary experiences of different Latino/a groups in the U.S., focusing on regional, national, and global processes. Examines how Latino/a groups have been incorporated into and have contributed to the development of the economic, political, social, and cultural systems in the United States. Emphasizes the interconnections among social processes, group interaction, and individual identity formation. Addresses how overlapping social categories such as national origin, race, class, gender, age, and sexuality shape the lives of Latinos/as.
Transfer Credit: Transfers to CSU, UC.

SOC 9
Global Society and Culture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines contemporary social, cultural, economic, political, and environmental change in a global context. Focuses on the emergence of global economy; the globalization of culture; transnational migrations; technological and environmental changes; and global social movements. Explores debates over globalization and the sometimes violent political, ethnic and religious responses to what is perceived as cultural and economic homogenization on a global scale. Offered as both ANTHR 9 AND SOC 9. Student may enroll in either course for credit, but not both.
Transfer Credit: Transfers to CSU, UC.

SOC 39A-Z
Sociological Studies
1-3 units; 1 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides intensive study of a particular area of sociology and encourages development of a sociological perspective for thinking about social issues. Course content will vary with each offering.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

SOC 47
Sociology of Crime and Deviance
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines the social context of crime and deviance. Topics may include theories of crime and deviance; the criminal justice system; white collar, organized, and street crime; race, ethnicity, sex, gender, and crime; and legal implications of crime and deviance. Socioeconomic and multicultural issues emphasized throughout the course.
Transfer Credit: Transfers to CSU, UC.

SPANISH
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office-Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
www.cabrillo.edu/programs

Information for Spanish Majors
The Spanish department offers courses that serve as a basis for broad liberal education, for advanced work in languages, as preparation for the teaching credential, and as supplementary preparation for many careers. These include emergency services, the legal and medical professions, social work, business, foreign service, public relations, journalism, translation and interpretation. Training in the Spanish language is widely considered essential preparation for teachers in California’s public schools.

High school preparation: Any high school preparation in Spanish is desirable, but not essential, if the language is declared as a college major. For the Spanish major, continuous study of the language is expected, with the level of instruction dependent upon previous training. As a minimum requirement, the student should complete Spanish 4 and Spanish 10A by the end of the sophomore year. Some transfer colleges require foreign language majors to develop a minor, often suggesting another foreign language or English.

MODEL PROGRAM FOR SPANISH
The following model program fulfills requirements for an A.A. degree in Spanish at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

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<tr>
<th>Course</th>
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<tr>
<td>SPAN 1</td>
<td>Beginning Spanish</td>
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<td>SPAN 16</td>
<td>Elementary Spanish for Spanish Speakers</td>
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<td>SPAN 2</td>
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<td>SPAN 17</td>
<td>Elementary Spanish for Spanish Speakers</td>
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<tr>
<td>SPAN 3</td>
<td>Intermediate Spanish</td>
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<td>SPAN 4</td>
<td>Intermediate Spanish</td>
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Spanish Courses

SPAN 1
Beginning Spanish
4 units; 4 hours Lecture
Corequisite: SPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Develops speaking, listening comprehension, reading, and writing skills, with Spanish as the primary language of instruction. Students communicate in Spanish through class activities and begin to study Hispanic cultures.

Transfer Credit: Transfers to CSU; UC, with limits: SPAN 1A & 1B combined - maximum credit - 1 course.

SPAN 1A
Beginning Spanish-First Half: Destinos
2 units; 2 hours Distance Ed video one way (TLCRS)
Equivalent to the first half of Spanish 1. Development and practice of elementary speaking, listening, reading, and writing skills. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU; UC, with limits: SPAN 1A & 1B - maximum credit - 1 course.

SPAN 1B
Beginning Spanish-Second Half: Destinos
2 units; 2 hours Lecture
Prerequisite: SPAN 1A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Equivalent to the second half of Spanish 1. Development and practice of elementary speaking, listening, reading, and writing skills. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU; UC, with limits: SPAN 1A & 1B - maximum credit - 1 course.

SPAN 2
Elementary Spanish
4 units; 4 hours Lecture
Prerequisite: SPAN 1 or two years of high school Spanish with a grade of "C" or better, or the equivalent.
Corequisite: SPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with Spanish as the primary language of instruction. Students communicate in Spanish through class activities and continue study of Hispanic cultures.

Transfer Credit: Transfers to CSU; UC, with limits: SPAN 1, 2, 3, 4 combined - maximum credit - 1 course.

SPAN 2B
Elementary Spanish-Second Half
2 units; 2 hours Lecture
Prerequisite: SPAN 2A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Equivalent to the second half of SPAN 2. Expansion and practice of elementary speaking, listening, reading, and writing skills. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU, UC. SPAN 2A & 2B are equivalent to SPAN 2-both must be taken to receive credit. SPAN 2, 2A & 17 combined - maximum credit - 1 course.

SPAN 3
Intermediate Spanish
4 units; 4 hours Lecture
Prerequisite: SPAN 2 or equivalent skills.
Corequisite: SPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Further develops skills acquired in first-year Spanish and expands grammar and vocabulary. Students study Hispanic cultures through reading and discussion of literary and cultural texts and develop writing skills. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU, UC.
SPAN 4
Intermediate Spanish
4 units; 4 hours Lecture
Prerequisite: SPAN 3 or equivalent.
Corequisite: SPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Students study more advanced structures and vocabulary with increased emphasis on discussion and analysis of literary and cultural texts and further develop writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

SPAN 5A
Advanced Grammar and Composition
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study of problematic components of Spanish grammar through exercises, extensive writing practice, reading, and oral presentations.
Transfer Credit: Transfers to CSU, UC.

SPAN 5B
Advanced Grammar and Composition
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Study of problematic components of Spanish grammar through exercises, extensive writing practice, reading, and oral presentations. Spanish 5A is not prerequisite to SPAN 5B.
Transfer Credit: Transfers to CSU, UC.

SPAN 6A
Spanish Through Film
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Advanced study of written and spoken Spanish through discussion and written analysis of selected Latin American films.
Transfer Credit: Transfers to CSU, UC.

SPAN 6B
Spanish Through Film
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Advanced study of written and spoken Spanish through discussion and written analysis of selected Spanish films.
Transfer Credit: Transfers to CSU, UC.

SPAN 10A
Intermediate Spanish Conversation
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: SPAN 2 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Development of conversational skills with attention to accuracy, vocabulary, and pronunciation. Discussion of culturally relevant topics and situations.
Transfer Credit: Transfers to CSU, UC.

SPAN 10B
Advanced Spanish Conversation
3 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Prerequisite: SPAN 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops conversational skills at the advanced level of proficiency with attention to accuracy, vocabulary, and idiomatic use. Students discuss culturally relevant topics and situations drawn from written and audio-visual sources.
Transfer Credit: Transfers to CSU, UC.

SPAN 16
Elementary Spanish for Spanish Speakers
4 units; 4 hours Lecture
Recommended Preparation: Listening comprehension at minimum of intermediate level. No prior formal study of Spanish required.
For students with Spanish-speaking backgrounds who have little or no formal language training. Development of correct Spanish usage through speaking, reading and writing. Awareness of Hispanic culture is emphasized.
Transfer Credit: Transfers to CSU; UC, with limits: SPAN 1AB, 1, 16 combined-maximum credit-1 course. SPAN 16 & 17 combined with SPAN 1, & 2- maximum credit- 1 series.

SPAN 17
Elementary Spanish for Spanish Speakers
4 units; 4 hours Lecture
Prerequisite: SPAN 16 or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Further development of correct Spanish usage through speaking, reading and writing. Reading selections reflect the diversity of Hispanic culture.
Transfer Credit: Transfers to CSU; UC, with limits: SPAN 16 & 17 combined with SPAN 1 & 2 - maximum credit- 1 series. SPAN 2, 2AB & 17 combined - maximum credit - 1 course.
SPAN 20A-Z
Practical Spanish for Professionals and Service Personnel
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An entry level course designed for professionals and service personnel working with the Spanish-speaking public.
Transfer Credit: Transfers to CSU. Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the transfer campus.

SPAN 25
Advanced Spanish
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reading and discussion in Spanish and Latin American prose. Intensive practice in hearing, speaking, reading and writing Spanish. Critical analytical written work is the primary means of evaluating student performance in this course. Honors option.
Transfer Credit: Transfers to CSU, UC.

SPAN 26
Advanced Spanish
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Transfer Credit: Transfers to CSU, UC.

SPAN 30B
Mexican Civilization and Culture
3 units; 3 hours Lecture
Prerequisite: SPAN 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A survey of Mexican culture from the pre-hispanic period to contemporary life. Focus on art, literature, history and politics. Conducted in Spanish.
Transfer Credit: Transfers to CSU, UC.

SPAN 50L
Spanish Language Laboratory
1-4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of Spanish 1-4. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

STROKE AND ACQUIRED DISABILITY CENTER
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Debora Bone, Stroke Center Director,
(831) 425-0622
Call (831) 425-0622 for more information
http://www.cabrillo.edu/programs

The Stroke and Acquired Disability Center offers a series of special classes for adults with functional loss, and for caregivers, including mobility and fitness skills, independent living skills, speech, hearing and language skills, and dealing with disabilities. Classes are located in the Stroke Center in Delaveaga Park, Santa Cruz. Transportation is available through Metro ParaCruz. A physician’s approval will be required. Call (831) 425-0622 for enrollment information.

Stroke and Acquired Disability Center Courses

SC 266
Applied Theories of Disabilities for the Physically/Neurologically Limited
0.5-4 units; 0.5 hour Lecture
Repeatability: May be taken 4 times. May be repeated when required to meet performance criteria.
Teaches individual and group counseling sessions designed to assist the students of the Stroke Center and caregiver/support system to understand and manage disabilities, to enhance self-esteem, and to make maximum use of community resources. Certification of disability required; assessment of needs; Student Educational Contract (SEC). Course offered at the Stroke and Acquired Disability Center.

SC 267
Orientation to the Community for the Physically/Neurologically Limited
0.5-4 units; 0.5 hour Lecture
Repeatability: May be taken 4 times. May be repeated when required to meet performance criteria.
Teaches students with physical/neurological disabilities to explore and participate in educational, recreational and rehabilitation employment opportunities. Includes orientation class and field trips into the community. Certification of disability required; assessment of needs; Student Educational Contract (SEC). Course offered at the Stroke and Acquired Disability Center.
SC 268
Independent Living Skills for the Physically/Neurologically Limited
0.5-10 units; 0.5 hour Lecture
Repeatability: May be taken 4 times. May be repeated when required to meet performance criteria.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies all aspects of independent living skills necessary for students with adult acquired physical/neurological limitations to gain successful reintegration into the community. Multidisciplinary team-taught program offers learning opportunities in functional mobility/fitness, activities of daily living, speech/language and counseling. Certification of disability required. Assessment of needs and goals; Student Educational Contract (SEC) provided upon registration. Course offered at the Stroke and Acquired Disability Center.

SUBJECT/SPECIAL STUDIES/ CAREER WORK EXPERIENCE EDUCATION

Recognizing that the classroom presentation does not always allow sufficient time for consideration and elaboration of special topics of interest to instructor and student, Cabrillo College offers three kinds of special study courses. These courses allow the student to explore special aspects of subject matter with one or more faculty members or have an opportunity to review in greater detail the material covered in class. Four year colleges and universities may limit the number of special studies units which are accepted. See a counselor for more information. Special Studies Courses must be initiated by a faculty member and the student must complete registration during the first 50% of the (fall or spring) semester meeting dates; please see Division Office staff for precise dates for summer Special Studies.

See the below for more information about the Career Work Experience Education program.

Subject/Special Studies/Career Work Experience Education Courses

SUBJECT 22
Special Studies (Honors)
1–3 units; 1 hour Lecture
Repeatability: May be taken a total of 4 times.
Prerequisite: Nomination by faculty member, completion of 12 units or more at Cabrillo with 3.5 or better average in the subject area. Completion of basic courses in subject area.

A directed studies course. An opportunity for students with special abilities to meet with faculty members to discuss and investigate topics of particular interest. (Subject 22 sections will be organized as needed in each of the departments and identified by the department name; e.g., History 22, Political Science 22, Zoology 22.) Subject 22 transfer credit is limited to maximum of 12 units.

Transfer Credit: Transfers to CSU only: Students must retain a copy of the Special Studies form, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course materials by the transfer campus.

SUBJECT 80S
Special Studies
1–3 units; Number of hours equal to those in a 1-unit lecture course for each unit
Prerequisite: Nomination by faculty member.
Repeatability: May be taken 4 times. Limited to four units a semester per department.

A directed studies course. Opportunity for students singly or in groups to investigate special areas of interest through projects, seminars, or organized classes. This course carries transfer subject matter credit and elective credit at four year institutions. Courses will be designated by department.

Transfer Credit: Transfers to CSU; UC with conditions: Students must retain a copy of the Special Studies form, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

SUBJECT 180S
Special Studies
1–3 units; Number of hours equal to those in a 1-unit lecture course for each unit. Limited to three units a semester per department.
Prerequisite: Nomination by faculty member. ENGL 100 and/or MATH 154 will be recommended if a specific project/course requires associate degree level language and/or computer skills.
Repeatability: May be taken 4 times.

A directed studies course. Opportunity for students in groups to investigate special areas of interest through projects, seminars, or organized classes. Courses will be designated by department.

CWEE 99C
Career Work Experience Education
0.5–4 units; 1.8 hours Work
Repeatability: May be taken a total of 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Career Work Experience Education is designed for students who have decided on a career and/or major, and who are ready for on-the-job experience. Career Work Experience provides supervised employment at a work site that is directly related to the student's career goal, and along with other on-campus lecture and laboratory courses, is an integral part of the student's major. The student may receive one unit per 60 hours of unpaid work experience or 75 hours of unpaid work experience per semester. CWEE 99C is designed for students who intend to transfer to a 4-year institution that accepts Work Experience Education.

Transfer Credit: Transfers to CSU only: Work experience transfer credit is limited at some CSU campuses; please check with a Cabrillo College counselor or the director of the Work Experience program.
THEATRE ARTS/DRAMA

Visual, Applied, and Performing Arts Division

Dan Martinez, Division Dean
Division Office, Room VAPA1007
Skip Epperson, Program Chair, (831) 479-6168
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Information for Theatre Arts/Drama Majors

The study of Theatre Arts/Drama requires creative technical and performance skills that benefit students in their individual relationships with others in social and artistic environments. Students selecting to major and minor in Theatre Arts/Drama frequently choose this area of study for three reasons: (1) to enter the professional fields of theatre, film, television, radio, and modeling; (2) to enter communication fields in teaching, business, industry and law; (3) to pursue personal goals or leisure activity in community events.

Opportunities for careers in theatre arts/drama are found in acting, theatre lighting, costume design, set production, scenery design, scene painting, television production, theatre production management, stage management, teaching and directing.

MODEL PROGRAM FOR THEATRE ARTS/DRAMA

The following model program fulfills requirements for an A.A. Degree in Theatre Arts/Drama at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

Select 18 units from:

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<th>Course</th>
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<tr>
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<tr>
<td>TA 10A</td>
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<td>TA 10B</td>
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<td>TA 11</td>
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<td>TA 31</td>
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CWEE 99G
General Work Experience Education
1–3 units; 1.8 hours Work
Repeatability: May be taken a total of 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

General Work Experience Education is an on-the-job educational experience designed to help students develop knowledge of workplace culture and career awareness. The job need not be related to the student’s educational program or career goal. The program combines classroom instruction with paid or volunteer on-the-job experience, utilizing the community’s business, industry and government agencies as expanded educational sites. The student may receive one unit per 60 hours unpaid work experience or per 75 hours of paid work experience per semester.

CWEE 199C
Career Work Experience Education
0.5–4 units; 1.8 hours Work
Repeatability: May be taken a total of 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Career Work Experience Education is designed for students who have decided on a career and/or major, are taking classes in their major, and who are ready for on-the-job experience. Career Work Experience provides supervised employment at a work site that is directly related to the student’s career goal, and along with other on-campus lecture and laboratory courses, is an integral part of the student’s major. The student may receive one unit per 60 hours unpaid work experience or 75 hours of paid work experience per semester.

CWEE 199G
General Work Experience Education
1–3 units; 1.8 hours Work
Repeatability: May be taken a total of 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

General Work Experience Education is an on-the-job educational experience designed to help students develop knowledge of workplace culture and career awareness. The job need not be related to the student’s educational program or career goal. The program combines classroom instruction with paid or volunteer on-the-job experience, utilizing the community’s business, industry and government agencies as expanded educational sites. The student may receive one unit per 60 hours unpaid work experience or per 75 hours of paid work experience per semester.
Approved Electives
Select 8 units from:

- TA 8 World Theatre ....................................... 3
- TA 9 Appreciation of Theatre Arts ................. 3
- TA 12A Movement for Actors ...................... 2
- TA 17 Introduction to Directing ................. 3
- TA 29 Rehearsal and Performance .............. 1-3
- TA 33 Makeup & Masks .............................. 3
- TA 34 Costume Workshop .......................... 3
- TA 35 Scene Painting ................................ 3
- TA 85M Characterization for the Musical Stage. . . 1
- DANCE 61 Introduction to Dance/Moving to Live Music½-3

Associate in Arts Degree in Theatre Arts/Drama

- General Education ...................................... 30
- Core Courses ............................................. 18
- Approved Electives ...................................... 8
- Electives (any course numbered 1-99) ............. 4
- Total for the A.A. Degree in Theatre Arts/Drama 60

Theatre Arts/Drama Courses

**TA 7**
*Introduction to Acting*
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Presents the basic techniques of performance on stage. The student will develop stage presence and explore movement, voice, improvisation, scene interpretation and other aspects of the actor in production. For non-theatre majors.
- *Transfer Credit: Transfers to CSU, UC.*

**TA 8**
*World Theatre*
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Introduces the theatrical traditions of World cultures and their influences on Western theatre. Racial, ethnic, political and social diversity as reflected in major theatrical works.
- *Transfer Credit: Transfers to CSU, UC.*

**TA 9**
*Appreciation of Theatre Arts*
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Covers the historical, literary, technical and performance aspects of theatre, film, TV and performance art from earliest time to the present. May be offered in a Distance-Learning Format.
- *Transfer Credit: Transfers to CSU, UC.*

**TA 10A**
*Basic Acting Techniques*
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Presents the fundamentals of the acting process to students with little or no acting experience. The student will discover and explore major theories and techniques of acting, improvisation, stage movement, vocal projection, concentration, motivation, characterization, rehearsal, and performance. The class will be taught through lectures and scene work.
- *Transfer Credit: Transfers to CSU, UC.*

**TA 10B**
*Intermediate Acting*
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: TA 10A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Studies acting with emphasis upon more advanced theories and practices, techniques and styles, and upon the methods of Stanislavsky, Brecht, and Meisner.
- *Transfer Credit: Transfers to CSU, UC.*

**TA 10C**
*Advanced Acting*
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times (with satisfactory progress).
Prerequisite: TA 10B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Presents intensive script analysis, scene study (period and modern) and critiques using in-class rehearsals and performances of student selected scenes.
- *Transfer Credit: Transfers to CSU, UC.*

**TA 11**
*Voice and Diction for the Theatre*
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Introduces the study and practice of using the voice effectively for drama. Breath, diction, articulation, emphasis and interpretation will be covered. Will be taught through readings, performances and improvisation and uses the phonetic alphabet, as well as acting techniques.
- *Transfer Credit: Transfers to CSU, UC.*

**TA 12A**
*Movement for Actors*
2 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- A physical class, held on the stage, designed to provide actors with confidence, strength and grace in performance. Basic instruction in all varieties of stage movement including dance, mime, stage combat (hand-to-hand and weapons), t’ai chi and creative movement. Scene study and character work.
- *Transfer Credit: Transfers to CSU, UC.*
TA 12B
Intermediate Movement for Actors
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: TA 12A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents movement in relation to scene study, directorial blocking, props, character analysis. Period styles, contact scenes.
Transfer Credit: Transfers to CSU, UC.

TA 13A
Beginning Improvisation
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers the creation of nonscripted theatre through improvisational scenes and theatre games. Developing group consciousness and trust work toward ensemble techniques.
Transfer Credit: Transfers to CSU, UC.

TA 13B
Intermediate Improvisation
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Prerequisite: TA 13A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies improvisation as both theatre training and a performing art; including theatre games, styles, techniques for performance, motivation and characterization.
Transfer Credit: Transfers to CSU, UC.

TA 14
The Art of Play Reading
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers reading, discussion, and interpretation of plays, films, radio and television in both the comic and serious genre. Materials will be drawn from both modern and historical scripts, as well as from all parts of the world. Emphasis on how to read a play and understand its unique structure.
Transfer Credit: Transfers to CSU, UC.

TA 15
Styles of Acting/Playing Shakespeare
3 units; 4 hours Lecture
Repeatability: May be taken 2 times.
Prerequisite: TA 10B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents an intensive analysis of Shakespearean texts, particularly verse. Designed to sensitize and aid the actor in developing a rehearsal process. Performance of monologues and scenes. Prior experience in a beginning to intermediate acting class is recommended.
Transfer Credit: Transfers to CSU, UC.

TA 17
Introduction to Directing
3 units; 4 hours Lecture
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents principles of basic directing, the history of the director in European and American theatre, scene analysis and interpretation.
Transfer Credit: Transfers to CSU, UC.

TA 18
Narrative Performance
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: TA 7 or TA 10A or equivalent experience; Eligibility for ENGL 100 and READ 100.

Examines dramatic literature from texts, through rehearsals of voice usage and staging, to performance. Lectures, practice sessions, casual and formal readings and production.
Transfer Credit: Transfers to CSU, UC.

TA 19
Baile Folclorico
1 unit; 3 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents selected regional dances of Mexico taught for technical and cultural understanding. Emphasis is given to the origin, development, styling and performance of the material.
Transfer Credit: Transfers to CSU, UC.

TA 21
Acting for the Camera
1-3 units; 1 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Prerequisite: TA 7 or TA 10A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores the actor’s relationship to the camera and the screen by performing and evaluating on camera interviews, auditions, improvisations and monologue/scene study. Off camera exercises in character analysis and actor concentration prepare the student for on camera work. The student learns to identify the differences between stage and screen acting techniques. Screen actors’ performances from a diverse range of sources including films from Hollywood, the U.S. independent film industry, India, Japan, China, countries of Africa and Europe are examined. The course pays particular attention to the development of a serious work ethic and the discipline necessary to this art form.
Transfer Credit: Transfers to CSU; UC pending review.
TA 27
**Theatre Production Workshop**
1-3 units; 1 hour Lecture, 4 hours Laboratory
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents hands-on backstage preparation for the current TA 29 stage production, including practical problem solving in scenery construction, lighting, props, costumes, make-up, sound, management and public relations.

*Transfer Credit: Transfers to CSU, UC.*

TA 28
**Backstage Theatre**
3 units; 2 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 2 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys all components of theatre technology (stagecraft) including lighting, sound, set construction, painting, costumes, stage management, makeup and properties. Students are given hands-on experience in all areas.

*Transfer Credit: Transfers to CSU, UC.*

TA 29
**Rehearsal and Performance**
1-3 units; 1 hour Lecture, 6 hours Laboratory
Repeatability: May be taken 4 times (with satisfactory progress).
Corequisite: TA 28, TA 33, TA 34, TA 35, or TA 27.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents the rehearsal and performance of the Theatre Arts stage production for the current semester. Must audition and be cast in current Theatre Arts production.

*Transfer Credit: Transfers to CSU, UC.*

TA 31
**Introduction to Design in the Theatre**
3 units; 2 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 3 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a wide exploration of design for the theatre, film, and video industries that includes projects in set, costume, lighting, and sound design.

*Transfer Credit: Transfers to CSU, UC.*

TA 33
**Makeup and Masks**
3 units; 4 hours Lecture
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents an introduction to the theory and practice of makeup for the stage. Practice in the design and application of straight, stylized character and other makeup techniques.

*Transfer Credit: Transfers to CSU, UC.*

TA 34
**Costume Workshop**
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents an introduction to costume design, theory and construction for the theatre. Includes costume support for the current Drama production (TA 27).

*Transfer Credit: Transfers to CSU, UC.*

TA 35
**Scene Painting**
3 units; 4 hours Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents the study of basic scene painting techniques and materials, including illusionistic and faux painting methods, realization of color elevations, and painting furniture and props.

*Transfer Credit: Transfers to CSU, UC.*

TA 74
**Introduction to Musical Theatre**
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Basic techniques of musical theatre onstage; stage presence; training to overcome the particular problems of musical comedy: singing, acting and movement.

*Transfer Credit: Transfers to CSU, UC.*

TA 75
**Summer Musical**
1-3 units; 9 hours Laboratory
Repeatability: May be taken 4 times (with satisfactory progress).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Rehearsal and performance of musical and musical comedy literature with concentration on all aspects of the production related to performance. Audition required for enrollment. Enrollment subject to audition by summer musical staff.

*Transfer Credit: Transfers to CSU, UC.*

TA 77
**Correlation of the Arts**
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies similarities and differences in the visual arts, music, and theatre arts are studied from an interdisciplinary perspective. Presents topics in creativity, aesthetics, style, and historical context are presented from a variety of viewpoints. Develops an awareness, understanding, and respect for diverse cultures through lecture, performance, and demonstration.

*Transfer Credit: Transfers to CSU, UC.*
WELDING

Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Gary Marcoccia, Program Chair, (831) 479-5705
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Welding Occupational Program

Welding Technology is an integral part of all industries that require the fabrication, maintenance and repair of metal structures. The Welding Technology program at Cabrillo is designed to prepare students for entry-level employment in welding and fabrication related industries, which include agriculture, construction, manufacturing, marine technology, and transportation. Interested students can pursue Skills Certificate options, continued education/re-training and qualification testing for those currently in welding related trades. In addition, American Welding Society certification testing is available through Cabrillo College Extension for individuals able to demonstrate skill equivalence at a level equal to or higher than W 152. Qualified welders should contact Ali Ameircupan, AWS-SCWI for enrollment information (831) 479-6250.

Basic Welding Skills Certificate

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
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<tbody>
<tr>
<td>Semester #1:</td>
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<tr>
<td>W 151 Gas and TIG Welding</td>
<td>2</td>
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<tr>
<td>W 156 Sheet Metal Fabrication</td>
<td>2</td>
</tr>
<tr>
<td>Semester #2:</td>
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<tr>
<td>W 150 Arc Welding</td>
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<tr>
<td>*W 152 Advanced Welding</td>
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<td>Total for Basic Welding Skills Certificate</td>
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Advanced Welding Skills Certificate

<table>
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<tr>
<th>Core Courses</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Semester #1:</td>
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<tr>
<td>**W 152A Advanced Arc Welding</td>
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</tr>
<tr>
<td>**W 154 Pipe Welding</td>
<td>2</td>
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<tr>
<td>Semester #2:</td>
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<tr>
<td>**W 158 Welding Fabrication</td>
<td>2</td>
</tr>
<tr>
<td>Semester #3:</td>
<td></td>
</tr>
<tr>
<td>**W 152B Advanced MIG Welding</td>
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</tr>
<tr>
<td>Semester #4:</td>
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</tr>
<tr>
<td>**W 152C Advanced TIG Welding</td>
<td>1</td>
</tr>
<tr>
<td>Total for Advanced Skills Certificate</td>
<td>7</td>
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</table>
*Requires W 150 or 151 (or demonstrated skill equivalence)
**Requires W 152 (or demonstrated skill equivalence)

AWS

American Welding Society qualification testing is available through Cabrillo College Extension for individuals able to demonstrate skill equivalence at a level equal to or higher than W 152. Qualified welders should contact Ali Ameircupan, AWS-SCWI for enrollment information (831) 479-6250.

Welding Courses

W 150
Arc Welding
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Introduces basic arc welding skills with an emphasis on safety, oxy-acetylene cutting, shielded metal arc welding and GMAW (MIG) welding techniques.

W 151
Gas and TIG Welding
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Presents a basic training in the flat and out of position welding of steels with the oxy-acetylene welding method, followed by the welding of steels, aluminum, and stainless steel with the GTAW process.
W 152
**Advanced Welding**
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: W 150 or W 151 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Continues training in arc and gas welding in various positions; introduces MIG welding, TIG welding, flux cored arc welding and flame cutting.

W 152A
**Advanced Arc Welding**
1 unit; 3 hours Laboratory
Prerequisite: W 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Presents continued advanced training in SMAW (Stick) welding techniques, focusing on the 3G and 4G positions with low hydrogen electrodes, enabling students to pass sample AWS welding code tests.

W 152B
**Advanced MIG Welding**
1 unit; 3 hours Laboratory
Prerequisite: W 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Continues advanced training in GMAW (MIG) welding techniques, focusing on all positions and sheet steel gages, in preparation for light gage fabrication and body-fender repair applications.

W 152C
**Advanced TIG Welding**
1 unit; 3 hours Laboratory
Prerequisite: W 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Continued advanced training in GTAW (TIG) welding techniques, focusing on all position welding of sheet gauge materials in steel, aluminum and stainless steels.

W 154
**Pipe Welding**
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: W 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Continues advanced training in SMAW and GTAW welding with emphasis on out of position pipe and tube welding techniques.

W 155
**Ornamental Ironwork**
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken 3 times.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the practical applications of traditional and modern metalworking techniques focusing on the history, development, and present-day practices used in the fabrication of architectural ornamental ironwork. Applied safety, MIG welding, oxy-fuel welding, plasma cutting, metal forming and traditional hot forging practices are included.

W 156
**Introduction to Sheet Metal Fabrication**
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Presents an introduction to and basic training in metal forming, fastening and blueprint reading skills. Students will develop thorough knowledge of use and application of related equipment.

W 158
**Welding Fabrication**
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken 2 times.
Prerequisite: W 150 or W 151.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Presents advanced training in steel fabrication utilizing state-of-the-art welding processes with emphasis on blueprint interpretation and welding codes.

W 190A-Z
**Special topics in Welding**
0.5-5 units; 0.5 hour Lecture
Repeatability: May be taken 4 times.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Selected topics in Welding not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.
Information for Women's Studies Majors

The Women’s Studies major is an interdisciplinary major which gives students the opportunity to study women’s experiences and questions of gender from a variety of perspectives, including feminist theory, history, religion, literature, cross cultural studies, psychology, sociology, sexual- ity, women and work, and women and the family. Courses in this major enrich the student’s knowledge of the historical, social, and cultural contributions of women from many ethnic groups all over the world, provide a feminist perspective on the study of sexual and racial oppression, and promote a rigorous scholarly inquiry of women’s rapidly changing economic, legal, and political position in society. The program also emphasizes personal growth through student participation and collaboration. Women’s Studies courses attempt to define a society free of sexual, ethnic, age, and class barriers.

Because the major is interdisciplinary, it gives students a comprehensive liberal arts background and prepares them for upper division work in Women’s Studies and many other humanities and social science majors at four-year colleges and universities. Students may also earn an A.A. Degree from Cabrillo with a Women’s Studies emphasis. Course work in this major leads to careers in the health professions, law, education, counseling, political and social work, journalism, public relations and communications, and public administration, among many others.

MODEL PROGRAM FOR WOMEN’S STUDIES

The following model program fulfills requirements for an A.A. Degree in Women’s Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Approved Electives
Select 18 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 8</td>
<td>Anthropology of Religion</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 9*</td>
<td>Global Society and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 17</td>
<td>Global Perspectives of Food and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ECE 32</td>
<td>Child, Youth, Family, and Community</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HUMAN 5</td>
<td>Cultures and Counter-cultures: America in the 1960s</td>
<td>3</td>
</tr>
<tr>
<td>HS 15</td>
<td>Human Sexuality</td>
<td>3</td>
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<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1/1H</td>
<td>Introduction to Sociology: Understanding Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2/2H</td>
<td>Contemporary Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 5</td>
<td>Sociology of Gender</td>
<td>3</td>
</tr>
<tr>
<td>SOC 8</td>
<td>Sociology of Latinos and Latinas</td>
<td>3</td>
</tr>
<tr>
<td>SOC 9*</td>
<td>Global Society and Culture</td>
<td>3</td>
</tr>
<tr>
<td>WS 5</td>
<td>La Mujer</td>
<td>3</td>
</tr>
<tr>
<td>WS 7</td>
<td>Psychology of Women</td>
<td>3</td>
</tr>
<tr>
<td>WS 39AZ</td>
<td>Special Topics: Women’s Studies</td>
<td>0.5 - 3</td>
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<tr>
<td>ANTHR 9/SOC 9</td>
<td>is a cross-listed course. Students may enroll in either course for credit, but not both.</td>
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</table>

Any course meeting the Multicultural Studies requirement.

Associate in Arts Degree in Women’s Studies

General Education | 30
Women’s Studies Core | 12
Approved Electives | 12
Electives (any course numbered 1-199) | 6
Total for A.A. Degree in Women’s Studies | 60

Women’s Studies Courses

WS 1
Introduction to Women’s Studies
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines the major social, cultural, economic, and political forces which affect the lives of diverse groups of women in the U.S. Introduces central social scientific concepts in women’s studies and explores feminist perspectives on a range of issues affecting women in the U.S., including gender socialization, violence, education, work, and family. Surveys and integrates anthropological, cultural studies, historical, legal, and sociological perspectives on gender and its relationship to race, sexuality, class, age and other aspects of social experience.

Transfer Credit: Transfers to CSU, UC.
WS 2
Introduction to Women’s Studies: Global Perspectives
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the major social, cultural, economic, and political forces which affect the lives of diverse groups of women in the Third World. Introduces central social scientific concepts in women’s studies and explores feminist perspectives on a range of social issues affecting women in Africa, Latin America, Asia, and the Middle East, including globalization, violence, education, work, and family. Surveys and integrates anthropological, cultural studies, historical, legal, and sociological perspectives on gender and its relationship to race, sexuality, class, age and other aspects of social experience in developing nations.
Transfer Credit: Transfers to CSU, UC.

WS 5
La Mujer
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Offers an interdisciplinary study of Latinas that reviews the impact of social institutions such as family, religion, work, education, on their daily lives. An exploration of their history, contemporary social roles, and personal identity. Contribution to community, cultural practices, values, and political identities will be examined.
Transfer Credit: Transfers to CSU, UC.

WS 7
Psychology of Women
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: PSYCH 1.
Explores contemporary theories, findings, and social issues regarding the psychology of women. Emphasis is on understanding how gender role socialization influences women’s beliefs and behaviors across the life span. Topics include achievement, intimate relationships, motherhood, mental health, violence against women, and empowerment.
Transfer Credit: Transfers to CSU, UC.

WS 8
Women’s Health Care
0.5-1 units; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Designed as an overview of some of the issues in women’s health care, including historical and present day forces that impact women today. Social, political, psychological, physiological, and economic aspects will be looked at. Through a feminist perspective issues such as gynecological topics, reproduction, birth control, reproduction rights, rape, cancer, CFIDS, AIDS, the physical and emotional aspects of codependency, sexuality, and aging will be examined. Personal experiences will be used as learning tools. Myths, facts, and women’s health politics will be examined. Class will teach women about their bodies and empower them to deal effectively with the health care system.
Transfer Credit: Transfers to CSU; UC, with limits: WS 8 combined with HS 10 & 20-maximum credit- 1 course.

WS 11
Feminist Theory and Methodology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An introduction to some of the classic and contemporary texts in feminist theory. The course also uses feminist theory to investigate the historical and social conditions of women around the world and the development of various women’s movements.
Transfer Credit: Transfers to CSU, UC.

WS 13
Women in Religion and Myth
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The study of the nature and functions of feminine deities, and an examination of the images and position of women within various mythologies and religious traditions.
Transfer Credit: Transfers to CSU, UC.

WS 39A-Z
Special Topics: Women’s Studies
0.5-3 units; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An intensive study of interdisciplinary aspects of women’s studies. Course content will vary with each offering. During any school session, one or more such courses may be offered, each one having its own title and being designated by its own permanent letter.
Transfer Credit: Transfers to CSU; UC, with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.
World Languages Transfer Information

Chinese, French, German, Italian, Japanese, Sign Language Studies, Spanish

The Department of World Languages offers courses which serve as a basis for broad liberal education for advanced work in languages, as preparation for the teaching credential, and as supplementary preparation for many careers. Cabrillo language courses provide preparatory work for language majors and minors, satisfy requirements of other majors, and fulfill general education requirements.

High School Preparation: Any high school preparation in world language is desirable if the language is declared as a college major. Continuous study of the language is expected, with the level of instruction dependent upon previous training. As a minimum requirement, the student should complete course 4 of the language by the end of the sophomore year. Some transfer colleges require world language majors to develop a minor, often suggesting another world language or English.

Transfer students have three sets of requirements to consider for successful transfer to UC, CSU and most private institutions. They are: 1.) admission requirements to the specific university, 2.) general education requirements at the specific university, and 3.) lower division preparation in the major (courses needed to be admissible to the major.) To ensure that you understand and include all of the above in your educational plan, it is essential to meet with a counselor early in your attendance at Cabrillo College. Information on equivalencies for general education and major requirements at UC and CSU is available at www.assist.org.
Faculty and Administrators

Date of original appointment follows name.

ABBOTT, JAMIE (1978) ........................................ Art-Studio
B.F.A., M.F.A., San Francisco Art Institute

ACOSTA, EVA (1990) ........................................ Counselor
B.A., M.S., California State University, Sacramento

ALAN CRAIG, MARCY (1991) ............................ English
B.A., University of California, Santa Cruz;
M.A., Antioch University West

ALBERTSON, SARAH (2005) ............................... Theatre Arts/Drama
B.A., Antioch College
M.F.A., Yale University, School of Art
M.F.A., Yale University, School of Drama

ALDERSON, ANTOINETTE (2006) ........................ Dental Hygiene
A.A., Chabot College, Hayward
B.A., California State University, Stanislaus

ALDRIDGE, Bonnie (1993) ................................. Children’s Center Teacher
B.A., California State University, Chico

AMBROSINI, DAVID (1988) ................................ Business
B.S., M.B.A., San Jose State University

ANDERSON, CHERYL (1994) ............................... Music
A.B., West Liberty State College, West Virginia;
M.M.E., University of Northern Colorado

ARD, PEGI (1992) ............................................ Vice President, Business Services
A.S., West Valley College; B.A., San Jose State University

ARNESTY, REBECCA (1986) ............................. Dental Hygiene
B.S., M.P.H., University of California, Los Angeles

BAER, WINIFRED (1998) ................................. English
B.A., University of California, Santa Cruz;
M.A., University of California, Santa Barbara

BAILEY-FOUGNIER, Dennis L. (2009) .................. Vice President/Asst. Superintendent, Student Services
B.S., University of Oregon;
M.Ed, Wichita State University
Ed.D., Oregon State University (In Progress)

BAÑALES, VICTORIA (2005) .............................. English
B.A., University of California, Santa Barbara;
M.A., San Francisco State University;
M.A., University of California, Santa Cruz;
Ph.D., University of California, Santa Cruz.

BARKEY, CHERYL (2000) ................................. History
B.A., University of California, Santa Cruz,
M.A., Ph.D., University of California, Davis

BELLIVEAU, KIM (1991) ................................. Physical Education
B.A., William Penn College; M.A., University of Connecticut

BLAUSTEIN, JOSH (2005) ................................. Chemistry
B.S., California Polytechnic University, San Luis Obispo;
Ph.D., University of California, Santa Cruz

BLOOM, BARBARA (1987) .............................. English
B.A., University of California, Santa Cruz;
M.A., San Francisco State University

BONE, DEBORA (1997) ................................. Stroke and Acquired Disability Center
B.A., Swarthmore College, Pennsylvania;
R.N., Ecole Le Bon Secours, Geneva, Switzerland;
Ph.D., University of California, San Francisco

BOOTH, MICHAEL (2007) ................................. Accounting
M.B.A., St. Mary’s College
B.S., University of San Francisco

BOWEN, JOHANNA (1995) ............................... Director, Library and Learning Resources
B.A., M.S., University of Illinois; M.P.A., Syracuse University

BRADY, GERLINDE (2001) .............................. Computer and Information Systems
M.A., University of Hannover; Instructor Certificate

BRAUNHUT, EDWARD (1999) .......................... Mathematics
B.A., M.A., University of California, Santa Cruz

BREZNER, CELIA Z. (1998) ............................. Adaptive Physical Education
B.A., University of California, Santa Cruz;
M.A., San Jose State University

BROGAN, ROSEMARY (1976) .......................... History
B.A., Mt. St. Mary’s College, Los Angeles;
M.A., San Jose State University

BROWN, NANCY A. (1987) ............................. Dean, Human Arts and Social Sciences
B.A., M.A., San Francisco State University

BROWN, RAYMOND (1975) ............................. Music
B.M., Ithaca College, New York;
M.S., Long Island University, New York

BROWN, SUSAN (1981) ................................. Music
B.M., Ithaca College, New York;
M.F.A., Sarah Lawrence College;
Graduate Study, University of Colorado

BRUCKNER, SUSAN (2007) ............................. Music
B.M., Eastman School of Music;
M.M., San Francisco Conservatory

BRUNGRABER, LEE (1996) ............................ Nursing
B.S.N., University of Delaware;
M.S., University of Colorado

BUELNA, ENRIQUE (2005) ......................... History
B.A., University of California, Santa Barbara;
M.P.A., University of Washington;
Ph.D., University of California, Irvine.

CAMARA, JASON (2002) .............................. Chemistry
B.S., Ph.D., University of California, Santa Cruz

CANTU, ARTURO (1992) ............................... Counselor
B.S., M.S., California State University, Sacramento

CARBONE, PAOLO (2008) ......................... Soccer Coach & Physical Education
B.A., University of California, Santa Cruz
M.A., Saint Mary’s College

CARDONA, LUZ (2008) ............................. Early Childhood Education
B.A., M.A., California State University, Monterey Bay

B.A., M.A., California State University, Monterey Bay
B.A., University of California, Santa Cruz;
Ph.D., University of California, Berkeley

CARTER, ERIC (1996). Culinary Arts and Hospitality Management
B.A., M.A., San Jose State University

CARTER, JOSEPH. English
B.A., University of California, Santa Cruz;
M.A., Brown University

CASPERS, MEGAN (2000). Mathematics
B.A., University of California, Santa Cruz;
M.S., Western Washington University

CASS, JENNIFER (2004). Mathematics
B.A., University of California, San Diego;
M.M., University of Rochester;
M.A., University of California, Santa Cruz

CHAO, MICHELLE (2002). Early Childhood Education
A.A., Pierce Community College;
B.A., University of California, Santa Cruz;
M.A., San Jose State University

CHINN, AURELIE T. (2002). Nursing
B.S.N., M.S.N University of Wisconsin

CLARK, BRIDGETE (2000). Dental Hygiene
A.S., Madison Area Technical College, Wisconsin;
B.S., Marquette University, Wisconsin;
D.D.S., University of the Pacific

CLOSE, CLAUDIA (1994). Philosophy
B.A., California State University, San Bernardino;
M.A., University of California, Riverside

COE, VIRGINIA (1985). English
B.A., University of California, Berkeley;
M.A., University of California, Santa Cruz;
Ph.D., University of California, Santa Cruz

B.A., University of California, Berkeley;
M.A., California State University, Sacramento

CORTES, MARIA (2001). Children's Center Teacher
A.S. Cabrillo College, Child Development Teacher Permit
B.A., M.A., Pacific Oaks College

COWAN, KATHRYN (1990). English
B.A., St. Mary of the Plains;
M.A., Ph.D., St. Louis University

CRANE, NICOLE (2006). Biology (Botany)
B.A., University of California, Santa Cruz;
M.S., San Francisco State University;
M.A., University of California, Santa Cruz

DASTAGIR, ZARMINA (2001). English as a Second Language
B.A., Kabul University, Afghanistan;
M.A., University of Northern Iowa, Cedar Falls

DEAVER, DOUG (1999). Director of Facilities, Planning and Purchasing
B.S., M.S., Purdue University

DeCOSSE, REGINA (1980). Dance
B.F.A., University of Utah

DeSPELDER, LYNNE (1975). Psychology
B.S., M.A., Michigan State University, E. Lansing

DOMINGUEZ, ELIZABETH (2000). Counselor
B.A., M.A. University of California, Santa Cruz

DOUGLASS, DAVID (1998). Psychology
B.A., San Jose State University;
Ph.D., University of California, Santa Cruz

DOWLING, MARY KATHRYN 'KATIE' (2005). Nurse Practitioner, Student Health Services
B.S.N. San Jose State University

DURLAND, BARBARA (1987). Computer Applications
B.A., California State University, Fullerton

B.M., University of Arizona;
M.M., University of Northern Colorado

EASTMAN, MARK (1985). Mathematics
B.A., Colorado College, Colorado Springs;
M.A., University of Montana, Missoula;
Ph.D., University of California, Santa Cruz

EDGEHOUSE, MICHAEL (2008). Biology
B.S., John Carroll University
Ph.D., Utah State University

ELLIS, ROBIN (2008). Bookstore Manager
B.A., California State University, Chico

B.A., Washington and Lee University, Virginia;
M.F.A., Virginia Commonwealth University

ESCOTO, SESARIO R. (2001). Dean of Student Services
B.A. University of California, Berkeley;
M.A., Stanford University;
Administrator Credentials, California State University, Fullerton

ESPAÑA, CONSUELO (1989). Spanish
B.A., Fac. Filosofia y Letras U.N.A.M.;
M.A., San Jose State University

FABBRI, E. VICTORIA (2008). Communications Studies
B.A., University of Guam
M.A. University of Hawai'i

B.S., M.A., California Polytechnic State University

FETTERMAN, TERENCE (1993). Psychology
B.A., M.A., San Jose State University

FIGUEROA, CARLOS (1999). Physics
B.A., University of Arizona; Graduate Study, University of California, Santa Cruz

FLORES-MUÑOZ, SHIRLEY (1985). Women's Studies
A.A., Sacramento City College;
B.A., M.A., Ph.D., University of California, Santa Cruz

FURBEE, CHERYL (1994). Accounting
B.S., M.A., San Diego State University;
M.B.A., California State University, Sacramento
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<td>B.A., Florida Presbyterian College; M.A., University of Michigan</td>
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<td>GARNER, WANDA L. (1986)</td>
<td>Dean, Natural and Applied Sciences Division</td>
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<td>A.A., Independence Community Junior College, Kansas;</td>
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<td>B.B.A., Loyola Marymount University; M.A., California State University, Monterey Bay</td>
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<td>B.A. Humboldt State University; B.A., University of California, Santa Cruz</td>
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<td>HAAS, SUSAN (1985)</td>
<td>Manager, Technical Applications, Information Technology</td>
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<td>HAGLER, MARY J. (1995)</td>
<td>Radiologic Technology</td>
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<td>M.H.A., Loma Linda University; Ed.D., Nova Southeastern University</td>
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<td>Photography</td>
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<td>Reading</td>
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<td>Business</td>
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<td>HAYWARD, CRAIG (2007)</td>
<td>Director, Planning, Research &amp; Knowledge Systems</td>
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<td>B.A., Boston University; M.A. &amp; Ph.D., University of California, Irvine</td>
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<td>HILEY, JANET (2004)</td>
<td>Independent Living Skills</td>
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<td>Political Science</td>
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<td>D.V.M., University of Sao Paulo; M.S., Ph.D., Cornell University</td>
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<td>HUNNICUTT, MASINAFANAA’E (2005)</td>
<td>Assistant Director of Admissions &amp; Records</td>
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<td>JANSEN, CHARLOTTE (1989)</td>
<td>Medical Assistant</td>
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<td>B.S., San Jose State University; M.P.A., University of San Francisco</td>
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<td>JONKER, GENEFFA (2000)</td>
<td>English</td>
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<td>B.A., University of Calgary; M.A., Simon Fraser University</td>
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<td>B.S., San Diego State University; M.B.A., University of California, Berkeley</td>
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<td>KELLER, TOBIN (2005)</td>
<td>Art Studio</td>
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<td>B.F.A., California College of the Arts; M.F.A., Mills College.</td>
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<td>KENNY, LENORE (2000)</td>
<td>Children’s Center Teacher</td>
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<td>B.A., University of California, Santa Cruz; Ed.M., Harvard University</td>
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<td>KILLEKER, ONNIE (1987)</td>
<td>Physical Education</td>
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<td>B.A., Stanford University; M.A., St. Mary’s College</td>
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<td>KILMER, RENEE (2005)</td>
<td>Vice President, Instruction</td>
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<td>B.A., San Francisco State University; M.A., California State University, Sacramento; Ph.D., University of California, Riverside</td>
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KING, BRIAN (2004) ......................... Superintendent/President
B.A., University of Missouri at Columbia;
J.D., Duke University;
Ed.D., University of Arkansas

KING, DAVID (2006) ......................... Dance
B.A., University of California, Santa Cruz
M.A., University of California, Los Angeles

KRAUSE, JOSEPH (1992) ..................... Mathematics
B.A., M.A., University of California, Santa Cruz

KREIN, BRADLEY (1994) ..................... Mathematics
B.A., University of California, Los Angeles;
M.A., University of California, Berkeley

KRAUSE, JOSEPH (1992) ..................... Mathematics
B.A., University of California, Santa Cruz;
M.A., San Francisco State University;
Undergraduate Study, University of London

LARSON, STEVEN (1999) ..................... Business Technology
B.A., University of California, Irvine;
M.A., San Jose State University

LUCERO, ANNE (2001) ....................... Nursing
B.A., California State University, Chico;
Nursing Program, California State University,
Dominguez Hills;
M.A., San Jose State University

LUNDQUIST, VERONICA (2008) ............ Mathematics
B.A., M.S., San Jose State University

MACEDO, M. TERESA (2005) ............... Sociology
B.A., University of California, San Diego;
M.A., University of Michigan;
Ph.D. University of Michigan

MACEDO, M. TERESA (2005) ............... Sociology
B.A., University of California, San Francisco;
M.A., University of California San Francisco;
Ph.D., University of Tennessee

MAGEE, BELITA (1999) ...................... Counselor
B.A., California State University Long Beach;
M.A., San Jose State University

MALONE, JASON (2008) .................... English as a Second Language
B.A., M.A., Southern Illinois University

MANGIN, MICHAEL (1997) ................ History
B.A., University of California, Berkeley;
M.A., Ph.D., University of California, San Diego;
MARCOCIA, GARY (1998) ................ Engineering Technology
B.S., University of New York;
M.A., California State University, Long Beach

MARCOPOULOS, ANTHONY (2000) ......... Physical Education
B.A., California State University, Stanislaus;
M.A., University of the Pacific

MARSHALL, THOMAS (2000) ............... English
B.A., University of California, San Diego;
Ph.D., University of California, Santa Cruz

MARTIN, TERA (2001) ....................... Learning Assistance Coordinator, Watsonville Center
B.A., Stanford University;
M.A., Ph.D., University of California at Santa Cruz

MARTINEZ, DAN (1979) .................... Dean, Visual, Applied and Performing Arts Division
A.A., Cypress College;
B.A., M.F.A., California State University, Long Beach

MCANDREWS, LISA (1989) ................. Horticulture
B.A., M.A San Francisco State University

MCBRIDE, KATHRYN (2005) ............... Art–Studio
B.A., M.A San Francisco State University

McCAWLEY, LOREE (1980) ................. Director, Personnel and Human Resources
B.A., M.P.A., San Jose State University

MADSEN, CHRISTINE (2000) .............. Nursing
B.S., San Diego State University;
M.S., San Jose State University

MAGEE, BELITA (1999) ..................... Counselor
B.A., California State University Long Beach;
M.A., San Jose State University

MALONE, JASON (2008) .................... English as a Second Language
B.A., M.A., Southern Illinois University

MANGIN, MICHAEL (1997) ................ History
B.A., University of California, Berkeley;
M.A., Ph.D., University of California, San Diego;
MARCOCIA, GARY (1998) ................ Engineering Technology
B.S., University of New York;
M.A., California State University, Long Beach

MARCOPOULOS, ANTHONY (2000) ......... Physical Education
B.A., California State University, Stanislaus;
M.A., University of the Pacific

MARSHALL, THOMAS (2000) ............... English
B.A., University of California, San Diego;
Ph.D., University of California, Santa Cruz

MARTIN, TERA (2001) ....................... Learning Assistance Coordinator, Watsonville Center
B.A., Stanford University;
M.A., Ph.D., University of California at Santa Cruz

MARTINEZ, DAN (1979) .................... Dean, Visual, Applied and Performing Arts Division
A.A., Cypress College;
B.A., M.F.A., California State University, Long Beach

MCANDREWS, LISA (1989) ................. Horticulture
B.A., M.A San Francisco State University

MCBRIDE, KATHRYN (2005) ............... Art–Studio
B.A., M.A San Francisco State University

McCAWLEY, LOREE (1980) ................. Director, Personnel and Human Resources
B.A., M.P.A., San Jose State University

MADSEN, CHRISTINE (2000) .............. Nursing
B.S., San Diego State University;
M.S., San Jose State University

MAGEE, BELITA (1999) ..................... Counselor
B.A., California State University Long Beach;
M.A., San Jose State University

MALONE, JASON (2008) .................... English as a Second Language
B.A., M.A., Southern Illinois University

MANGIN, MICHAEL (1997) ................ History
B.A., University of California, Berkeley;
M.A., Ph.D., University of California, San Diego;
MARCOCIA, GARY (1998) ................ Engineering Technology
B.S., University of New York;
M.A., California State University, Long Beach

MARCOPOULOS, ANTHONY (2000) ......... Physical Education
B.A., California State University, Stanislaus;
M.A., University of the Pacific

MARSHALL, THOMAS (2000) ............... English
B.A., University of California, San Diego;
Ph.D., University of California, Santa Cruz

MARTIN, TERA (2001) ....................... Learning Assistance Coordinator, Watsonville Center
B.A., Stanford University;
M.A., Ph.D., University of California at Santa Cruz

MARTINEZ, DAN (1979) .................... Dean, Visual, Applied and Performing Arts Division
A.A., Cypress College;
B.A., M.F.A., California State University, Long Beach

MCANDREWS, LISA (1989) ................. Horticulture
B.A., M.A San Francisco State University

MCBRIDE, KATHRYN (2005) ............... Art–Studio
B.A., M.A San Francisco State University

McCAWLEY, LOREE (1980) ................. Director, Personnel and Human Resources
B.A., M.P.A., San Jose State University

MADSEN, CHRISTINE (2000) .............. Nursing
B.S., San Diego State University;
M.S., San Jose State University

MAGEE, BELITA (1999) ..................... Counselor
B.A., California State University Long Beach;
M.A., San Jose State University

MALONE, JASON (2008) .................... English as a Second Language
B.A., M.A., Southern Illinois University

MANGIN, MICHAEL (1997) ................ History
B.A., University of California, Berkeley;
M.A., Ph.D., University of California, San Diego;
MARCOCIA, GARY (1998) ................ Engineering Technology
B.S., University of New York;
M.A., California State University, Long Beach

MARCOPOULOS, ANTHONY (2000) ......... Physical Education
B.A., California State University, Stanislaus;
M.A., University of the Pacific

MARSHALL, THOMAS (2000) ............... English
B.A., University of California, San Diego;
Ph.D., University of California, Santa Cruz

MARTIN, TERA (2001) ....................... Learning Assistance Coordinator, Watsonville Center
B.A., Stanford University;
M.A., Ph.D., University of California at Santa Cruz

MARTINEZ, DAN (1979) .................... Dean, Visual, Applied and Performing Arts Division
A.A., Cypress College;
B.A., M.F.A., California State University, Long Beach

MCANDREWS, LISA (1989) ................. Horticulture
B.A., M.A San Francisco State University

MCBRIDE, KATHRYN (2005) ............... Art–Studio
B.A., M.A San Francisco State University

McCAWLEY, LOREE (1980) ................. Director, Personnel and Human Resources
B.A., M.P.A., San Jose State University

McCULLOUGH, JOSEPH (2001) ............ Physics
B.A., Johns Hopkins University;
M.S., Ph.D, University of California, Santa Cruz

McFARLAND, ROBIN (1998) .............. Biology
B.A., Southern Oregon State;
Ph.D., University of Washington

McKENZIE, DUSTIN (2008) ............... Archaeological Technology & Anthropology
B.A., M.A., University of California, Santa Barbara

MCKAY, THOMAS A. (2002) ............... Director of Allied Health
A.A. Purdue University;
B.S.N., Purdue University;
M.S.N., University of California San Francisco;
Ph.D., University of Tennessee
McKINNON, MERRY E. (1998) Stroke and Acquired Disability Center B.A., San Francisco State University; M.A., Saint Clara University


MEKIS, DONNA (1991) Honors Transfer B.A., M.A., University of California, Santa Cruz


MEYER, PATRICK (1998) Program Chair and Instructor, Human Services B.A., Humboldt State University M.S.W., Boston University

MILHOAN, RON (1984) Art-Studio B.F.A., University of Nebraska, Lincoln; M.F.A., Ohio State University, Columbus

MORGALI, DANIEL (2004) Mathematics B.S., University of the Pacific; M.S., California State University, Hayward, Graduate Study, University of California, Santa Cruz

MORNARD, CHARLES (2004) Construction and Energy Management A.S., Cabrillo College; B.S., California State University, Sacramento; M.P.A., San Jose State University


MURRAY, DALE (1977) Athletic Director, Physical Education A.A., West Hills College; B.S., California State University, Hayward; M.A., California State University, Long Beach

NAJARRO, ADELA (2005) English B.A., University of Redlands; M.F.A., Vermont College of Norwich University; Ph.D., Western Michigan University


NAPOLITANO, JOSEPH (2001) Director, Disabled Student Programs and Services B.A., Saint Peter's College; M.A., University of San Francisco

NAVARRO, JAMES (Diego) (2005) Digital Bridge Academy B.A., Antioch University; M.B.A., Harvard University


NERTON, SUSAN (1992) Computer Science B.A., University of California, Santa Cruz

NIVEN, KATHERINE (1988) Culinary Arts and Hospitality Management B.A., University of California, Santa Cruz

NORRIS, WENDY (2000) Digital Media B.A., M.A. San Francisco State University; Spanish/American Institute, University of Colorado

NORTON, LEONARD (2006) Stroke and Acquired Disability Center B.S., University of Hartford M.S., University of the Pacific

NUGENT, JOSEPH (2001) Director, Maintenance and Operations B.S., University of San Francisco; M.S., University of California, San Francisco; Graduate Study, Saint Clara University

O'BRRIE, RORY (1998) Political Science B.A., California State University, Northridge; M.A., Ph.D., University of Southern California

OGIMACHI, SHAWN N. (1999) Counselor A.A., Cabrillo College; B.A., University of California, San Diego; M.A., San Jose State University

OMOSUPE, EKUA (1992) English B.A., University of Colorado M.A., Ph.D., University of California, Santa Cruz;


OWEN, ROBERT (2006) Associate Vice President, Information Technology B.B.A., M.S.E., University of Wisconsin, Milwaukee Ph.D., University of LaVerne

PADEN, CASSANDRA (2000) English A.A., Evergreen Valley College; B.A., M.A., University of California, Santa Cruz

PANZARDI, JO-ANN (1995) Engineering B.S., Polytechnic University, Brooklyn, New York; M.S., University of Maryland, College Park, Maryland

PARRISH, EDWARD (2002) Computer Science A.A. West Valley College; B.A. University of California, Berkeley; M.S., University of California, Santa Cruz
Pebworth, Michael (2001) .............................. History
B.A., Indiana University;  
M.A., Ph.D., University of Oregon

Pfotenhaus, R. Rock (1985) ....................... Dean, Instruction,  
Career Education and Economic Development
B.A., M.S., University of California, Santa Cruz

Phillips, Nancy (2007) ............................... Nursing  
Director/Instructor
B.A., California State University, Long Beach  
M.S., California State University, Fullerton

Pirchio, Roy (2008) ................................. Fiscal Services  
Manager
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